

***Northwest Region Emergency Medical Services and  
Trauma Care Council***

***FY'02 – 03 Biennial Plan***

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## ***EMTP Mission***

To establish, promote and maintain a system of effective emergency medical treatment for people with acute illness and traumatic injury, and recognizes the changing methods and environment for providing optimal emergency care throughout the state of Washington

# ***INTRODUCTION***

## ***SUMMARY OF PROPOSED CHANGES***

## ***EXECUTIVE SUMMARY***

### **Regional Overview**

The Northwest Region Emergency Medical Services and Trauma Care Council, which consists of Clallam, Jefferson, Kitsap and Mason Counties and the West Olympic Peninsula EMS Council, represents a diversity in emergency medical services and trauma care. Level of care varies from Basic Life Support (BLS), to Intermediate Life Support (ILS) to Advanced Life Support (ALS). Response times vary from an arrival on-scene time of under eight minutes 80% of all calls to an arrival on-scene time of over an hour, depending on the area the call originates from. In some areas only a few miles separate this diversity in levels of care and response times.

A variety of reasons explain these differences. An area of low population and low revenue translates into a low volunteer pool and low economic base. Rural remote areas, which make up a large portion of the Northwest Region, exacerbate the problem, as population and access to telephones, are very limited, resulting in delays of reporting emergencies. Cellular coverage in the Northwest Region has expanded recently providing better emergency reporting.

Education awareness of the emergency medical services and trauma care system is an imperative and ongoing process within the Northwest Region. The full extent of what is being done and what is lacking will not become a priority until those impacted by the EMS system are fully educated on the significance and importance of an EMS system to each community. Another reality is that many agencies do not have the financial resources available to provide their own service and must rely on a service many miles away.

Jefferson County and West Olympic Peninsula (Neah Bay, located in the far northwest corner of the region), use Intermediate Level Support (ILS) providers. ILS is specifically targeted toward rural and remote providers and provides a very necessary service. Both areas will continue to train and upgrade more providers to the ILS level during this biennium.

### **Training**

Continuing education for BLS and ILS providers within the Northwest Region is provided through an Ongoing Training and Evaluation Program (OTEP) developed by the Northwest Region's Training Coordinator and approved by the Department of Health. OTEP consists of twenty-four modules taught on-site at agencies on a rotating basis. ILS providers are also required to attend Paramedic Base Station training to enhance their more advanced skill level.

The Northwest Region EMS Council Training Coordinator and Training, Education and Development Committee members rewrite six modules annually. The new modules are in a scenario-based format.

Continuing education for Advanced Life Support providers is provided through in-house monthly base station meetings conducted by physicians. The Northwest Region also sponsors an annual EMS conference that provides recertification courses and additional training opportunities for providers within the Northwest Region and throughout the state.

### **Communications**

Communication centers, although they are not recognized in the trauma bill, are an integral component of emergency medical services and patient care. Kitsap County and Mason County are both transitioning and training personnel in Criteria Based Dispatching. Other dispatch centers in the Northwest Region use E-9-1-1 to activate the system.

### **Injury Prevention and Public Information/Education**

One committee divided into two regional components performs prevention activities in the Northwest Region. Clallam and Jefferson committee members represent the northern part of the Northwest Region and Kitsap and Mason committee members serve the southern portion region.

During the past eight years, over 13,500 helmets have been distributed to disadvantaged youth living within the Northwest Region. Sober Roadways presentations are presented to an average of 800 participants per month, including Navy personnel. Additionally, Youth DUI Victim's presentations are made monthly to approximately 150 teens and their parents. Trauma Nurses Talk Tough presentations and Tread to Safety presentations reach an additional 100 – 200 participants each month. Seventeen Mock Crash presentations occurred during this past year and reached a total of 3000 teens. All of the above prevention activities, and the addition of car seat safety, will continue during the FY'2002-2003 biennium in an effort to reach as many participants as possible

### **Healthcare Facilities**

The Northwest Region is unique in the fact that each county has only one major healthcare facility located in each area of population and geography. Kitsap County and Clallam County each contain a Level III trauma center within the region. Clallam County also has one Level IV center located in Forks, Jefferson and Mason Counties each have a Level IV trauma center located in Port Townsend and Shelton, respectively.

To ensure quality assurance within the Northwest Region, a Quality Assurance Committee consisting of members from both hospital and prehospital venues conducts quality assurance reviews bimonthly. An annual retreat is also conducted during the month of May.

### **Overview**

In January 2000 the Northwest Region became the first region within the state to adopt Regional Patient Care Protocols. These Regional Protocols are currently under review and revision. After MPD approval they will be distributed during January 2002.

The Northwest Region's prehospital min/max numbers will be reviewed by the appropriate local council and a recommendation will be brought to the Northwest Region for approval.

The Northwest Region's Regional Patient Care Procedures will also be reviewed during this biennium. Transport times and the addition of Criteria Based Dispatch are two areas that will be reviewed/added.

Some Northwest Region EMS local council's are monitoring Public Access Defibrillation within their county. Medical Program Directors are aware of their locations and use.

Human resources, from volunteer emergency medical personnel to committee members, are and will continue to be the highest priority for rural volunteer agencies and the Northwest Region EMS Council membership. This is a situation faced by agencies and regions statewide and recruitment efforts will continue throughout the new biennium.

With the continued support of the Department of Health, and staff from the Office of EMS and Trauma Prevention, the Northwest Region will continue its efforts for the implementation and refinement of an effective region-wide trauma system. This system will enable agency personnel to meet the emergency medical needs of residents and visitors to the Northwest Region and the State of Washington.

# ***ADMINISTRATIVE COMPONENTS***



## ***REGIONAL COUNCIL***

### ***Leadership***

In accordance with WAC 245-976-960 the Northwest Region Emergency Medical Services and Trauma Care Council is the lead agency in the development of a trauma system in Clallam, Jefferson, Kitsap and Mason counties. The Northwest Region EMS Council is an incorporated, non-profit organization recognized by the State of Washington and the Federal Government.

Functions of the Northwest Region EMS Council include local council, agency, provider support, training and education, injury prevention and public education, as well as, planning and implementation of a trauma system.

Members of the Northwest Region EMS Council represent a cross section of emergency medical service providers including, but not limited to, prehospital provider agencies, health care facilities, communication centers, rehabilitation centers and concerned citizens.

The Northwest Region endeavors to avoid duplication of effort and increase productivity by collaborating and cooperating with agencies located within and outside the region.

Local EMS & Trauma Care Councils provide local knowledge and leadership in trauma system development. Local council by-laws determine membership; however, they usually include representatives from EMS agencies, trauma services and emergency dispatch centers. Many local councils within the Northwest Region also include membership from naval hospitals, naval bases, Coast Guard, Olympic National Park and Search and Rescue representatives, as well as, tribal representation from area Indian Reservations. Medical Program Directors are also local council members, as well as, Northwest Region EMS Council members. They provide Northwest Region EMS Protocols and assist with both initial and continuing EMS and trauma training within the region.

The Northwest Region EMS Council's Prevention Coordinator, who is a board member of Helmets for Youth Foundation and Kitsap County DUI Victim's Panel, coordinates prevention activities for:

- ◆ Helmets for Youth Foundation, a non-profit group that acquires helmets for distribution in Kitsap County. Helmets for Youth Foundation has received a grant for the purchase of helmets that will be distributed in Jefferson and Mason counties, as well as, Kitsap County and coordinated by the Northwest Region EMS Council.
- ◆ Kitsap County DWI Victim's Panel. A group that makes formal presentations to court ordered DUI offenders in Jefferson, Kitsap and Mason counties, as well as, Puyallup offenders. Presentations are also held at Puget Sound Naval Shipyard and Bangor Submarine Base.

Prevention activities are also coordinated with organizations and committees located within the region.

- ◆ Bremerton DWI Task Force participates at Youth DUI Victim's Panel presentation. This is a group formed by the Northwest Region and based on the Kitsap County DWI Victim's Panel format. Teens involved in alcohol related activities are referred by the court system to attend these meetings and listen to stories of their peers whose

lives have been affected by drunken drivers. A Mason County Youth DUI Victim's Panel is currently being formed.

- ◆ WHEELS Coalition conducts bicycle rodeos and bicycle safety throughout Kitsap County. They also assist at helmet fittings.
- ◆ Mason County Coop conducts prevention activities within Mason County. Activities include programs administered by the Northwest Region including bicycle safety, Trauma Nurses Talk Tough, Tread to Safety, water safety and car seat safety.
- ◆ Risk Watch is a program designed by fire agencies that incorporates Learn Not to Burn into a multiyear safety program presented to preschool through eighth grade students. Fire safety, water safety, bicycle safety and drugs are among the topics discussed.
- ◆ Washington Traffic Safety Commission is instrumental in many of the programs provided by the Northwest Region. Through grants helmets have been purchased, Sober Roadways presentations are made and Youth DUI Victim's Panels have been developed.
- ◆ Mary Bridge Hospital is also active in providing bicycle and water safety assistance to the Northwest Region.

The Northwest Region is also an active participant in Mock Crashes and disaster drills presented by regional high schools and Departments of Emergency Management located in each county.

A Training Coordinator coordinates training activities in the Northwest Region with input from a Training/Education/Development Committee. An Ongoing Training Education Program (OTEP) has been developed by the Northwest Region to provide continuing education for BLS providers.

OTEP is currently used by all agencies located within the region including military personnel with:

- ◆ Puget Sound Naval Shipyard
- ◆ Naval Submarine Base Bangor
- ◆ Naval Undersea Warfare Base - Keyport, and the
- ◆ Coast Guard

OTEP is also being used by:

- ◆ Olympic National Park
- ◆ Search and Rescue

Many agencies in Pierce, Lewis and Grays Harbor counties are currently using OTEP developed by the Northwest Region.

All hospitals located within the region are represented by membership in the Northwest Region EMS Council. They are:

- Olympic Memorial Hospital – Port Angeles, Clallam County
- Jefferson General Hospital – Port Townsend, Jefferson County

- Harrison Memorial Hospital – Bremerton, Kitsap County
- Mason General Hospital – Shelton, Mason County
- Forks Hospital – Forks, West Olympic Peninsula, Clallam County

The Northwest Region EMS Council office is staffed by three full time personnel and functions on a council driven basis with the Chairperson as principal contact between the Executive Board and staff. Staffing consists of an Office Supervisor/Finance Manager, Prevention Coordinator and a Training Coordinator.

## ***Other Agencies Involved in the Northwest Region EMS Trauma System Planning and Development***

### **MILITARY & AFFILIATED AGENCIES**

The following military installations located within the Northwest Region; work closely with their appropriate local EMS council.

In Kitsap County the military installations have their responding EMT-B's state certified and follow Regional Protocols and are under the direction of the local Medical Program Director. They also hold membership positions on Kitsap County EMS Council.

- Puget Sound Naval Station
- Naval Submarine Base-Bangor
- Naval Hospital-Jackson Park
- Naval Undersea Warfare Center-Keyport

In Clallam County, the Olympic National Park, Search and Rescue and the Coast Guard hold membership positions on the local council.

- Olympic National Park
- U.S. Coast Guard

Also in Clallam County, and members of the West Olympic EMS Council as well as the Northwest Region EMS Council, the Makah Indian Tribe participates by having their providers state certified, by following the Northwest Regional Protocols and are under the direction of the Jefferson County Medical Program Director.

### **EDUCATIONAL INSTITUTIONS**

The following institutions play an important role in Regional trauma system development by providing initial training for new EMT-B's.

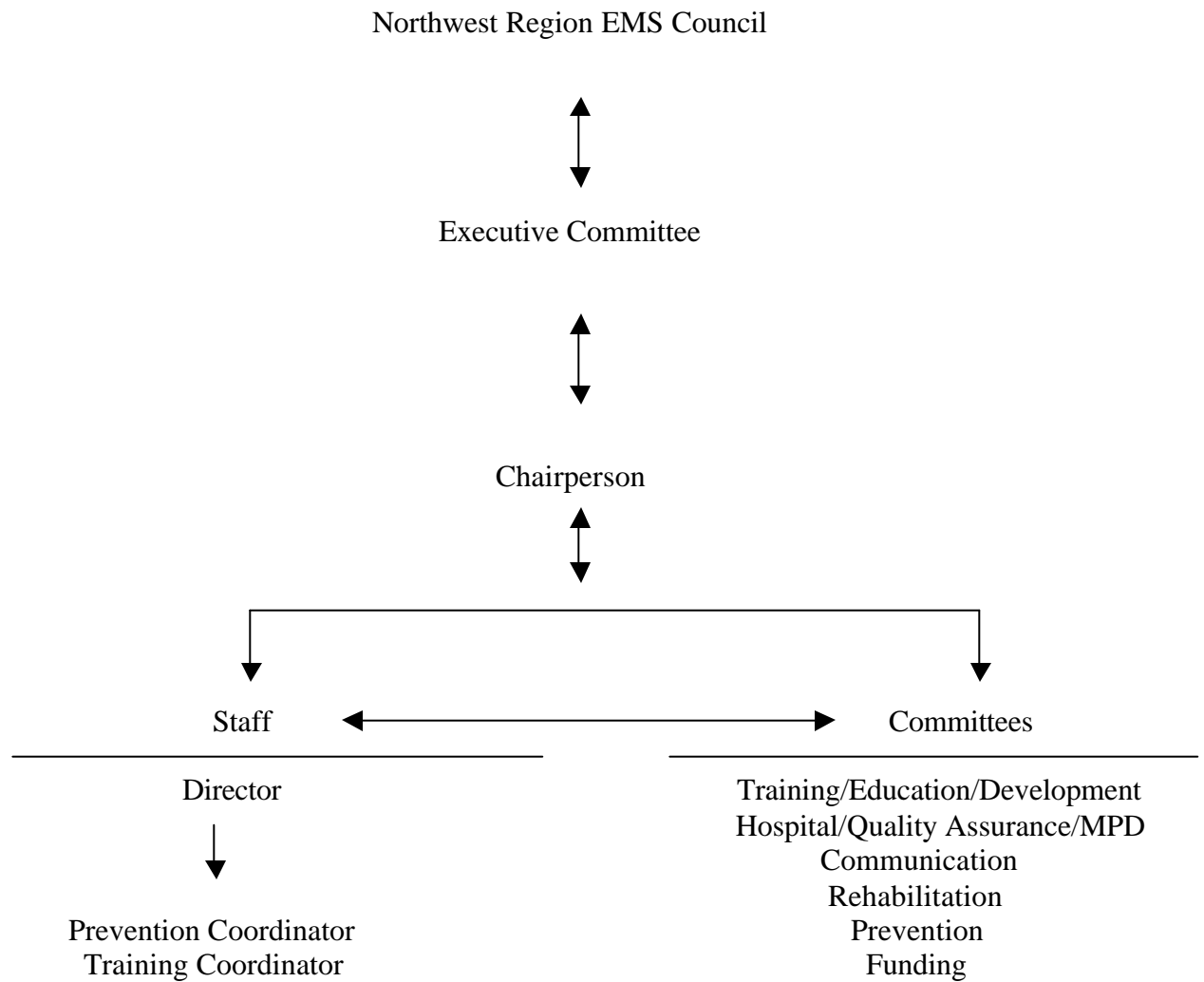
- Peninsula College – Port Angeles, Clallam County
- Olympic College – Bremerton, Kitsap County

Both colleges, working in conjunction with local council training coordinators, provide initial EMT-B courses throughout the year. Peninsula College also hosts courses for potential providers from both Clallam County and Jefferson County.

Olympic Memorial Hospital, Jefferson General Hospital and Mason General Hospital also provide annual trauma training, including TNCC, PALS and ACLS for hospital personnel, as well as, for the appropriate level of prehospital providers.

# ***Northwest Region Emergency Medical Services and Trauma Care Council***

## **Organizational Chart**



## ***Council Operations***

The Northwest Region EMS and Trauma Care Council is a council driven, rather than, an administratively led, operation. A Director is lead person in daily office operations. The Director and council Chairperson collaborate on other issues with updates provided to members of the Executive Committee.

Northwest Region EMS Council and committee meetings are held every other month in Port Angeles. On off meeting months, Executive Committee and necessary committee meetings are held in Bremerton. This allows staff and Executive Committee members to meet and discuss on-going projects and to plan future projects.

To provide continuity the council Chairperson and Director attempt to attend all committee meetings. Committee meetings are held on an as needed basis and provide direction to staff members on courses of action and projects to be completed.

It is the responsibility of the Chairperson and Executive Committee to ensure that directives by committee and council members are achieved in a complete and timely manner.

The Northwest Region EMS Council Structure consists of membership from Clallam, Jefferson, Kitsap and Mason EMS Councils and West Olympic Peninsula EMS Council, which includes West Clallam County and West Jefferson County.

The Regional Council is composed of thirty-eight representatives and thirty-four alternates. The State of Washington, Department of Health, shall appoint representatives and alternates after endorsement from the applicant's local council.

Representation shall consist of six representatives and alternates from each council in the Region:

- ❖ Two Local Council Member Representatives
- ❖ One Prehospital Representative
- ❖ One Healthcare Representative with hospitals determining the category of their representation
- ❖ One Communications Representative
- ❖ One Rehabilitation Facility Representative.

Regional positions shall consist of:

- ❖ Four Medical Program Directors, one from each county within the Region with no alternates
- ❖ One Local Elected Official Representative
- ❖ One Consumer Representative
- ❖ One National Park Service/Forest Service Representative; and

- ❖ One Law Enforcement Representative.

The Northwest Region EMS Council office is staffed by:

- ❖ One Finance Manager/Office Supervisor
- ❖ One Prevention Coordinator; and
- ❖ One Training Coordinator

To help fulfill the mandates of the trauma legislation, the Northwest Region EMS Council has established the following committees:

1. Training/Education/Development Committee
2. Hospital/Quality Assurance Committee
3. Communications Committee
4. Rehabilitation Committee
5. Prevention Committee
6. Executive Committee
7. Funding Committee

#### **Training/Education/Development (TED) Committee**

TED Committee members are representative from prehospital agencies located within the Northwest Region. They monitor and update Patient Care Procedures and are involved in setting a region-wide method for data collection

#### **Hospital/QA Committee**

This committee membership consists of representatives from each of the five major hospitals located within the Northwest Region. They are Olympic Memorial Hospital in Port Angeles, Jefferson General Hospital in Port Townsend, Harrison Hospital in Bremerton, Mason General Hospital in Shelton and Forks Hospital in Forks. This group is the core of a group that conducts Quality Improvement reviews and participates in the ongoing process of updating Patient Care Procedures.

#### **Communications Committee**

The Communications Committee consists of members that are involved with their agency's communications systems and members of E911 systems from throughout the region. Their task is to identify communication systems weaknesses within their own agencies and region-wide communication problems. Once these weaknesses are identified they work together to determine a solution to the problem and to present those findings to the Northwest Region EMS Council.

## **Rehabilitation Committee**

Currently, the Northwest Region does not have members identified for this committee. Primarily, rehabilitation efforts are conducted outside the region in either King or Pierce Counties. One Level III rehabilitation center is located within the Northwest Region.

## **Prevention Committee**

The Northwest Region EMS Council has one Prevention Committee divided into two regional components. Due to demographics it has proved to be more effective to have a North Prevention Committee, which includes members from Clallam and Jefferson Counties and a South Prevention Committee, consisting of members from Kitsap and Mason Counties.

Prevention Committee members are not necessarily Northwest Region EMS Council members, but members from local fire agencies, affiliated agencies or concerned citizens that can contribute to prevention and public education efforts within the Northwest Region.

## **Executive Committee**

The Executive Committee consists of the present Chairperson, Vice-Chairperson, Secretary/Treasurer, most recent past Chairperson and two At-Large members. They fulfill a decision making process for the Northwest Region EMS Council when directed to do so by council members.

Committee members also review all accounts payable, accounts receivable, deposits and check registers on a bi-monthly basis to ensure that all accounting practices are fair and reasonable and within the region's contractual obligations with the Department of Health.

## **Funding Committee**

Membership of this committee consists of the Executive Committee and one Northwest Region EMS Council member from each local council located within the region. Committee members are tasked with the review of annual training requests and office operations budgets and to form a recommendation for the Northwest Region EMS Council.

## **GOAL**

A goal for the Northwest Region EMS Council committees is to incorporate local, as well as, state statistics into the planning and ongoing trauma system development.

The QI Committee currently holds an annual conference where statistics from Harborview and the Department of Health are disseminated and the Northwest Region is looked at as a whole and then by county. These and other regional statistics shall be reviewed on a more frequent basis.

Prevention activities will also benefit from the use of data collected. This will enable the committee to see how their activities have benefited the region and to identify the areas where problems still exist.

We will also look at other data as it becomes available to determine if and how the statistical outcomes can benefit the region and the trauma system.



# ***SYSTEM DEVELOPMENT***

## ***EMS/Trauma System Plan Development, Maintenance and Evaluation***

### **EMS and Trauma Plan Development**

The Northwest Region's plan is a living document that is always in the process of change. Staff members are assigned specific portions of the plan and tasked with the development, coordination, and completion of that portion of the plan in compliance with direction from the appropriate committee and regional council.

### **Needs Assessment and Identification of Resources**

Local EMS councils contribute trauma system needs by ongoing participation at Regional Council and local council meetings. The Director of the Northwest Region EMS office also obtains current and future needs by attending a minimum of one local council meeting per county per quarter. Usually, more than the minimum meetings are attended. This is essential in understanding the full picture for the Northwest Region and meeting the trauma system needs of individual counties and agencies.

To further obtain information a survey of current needs, future needs and a five and ten year plan was sent to all agencies within the region. This information as well as demographics, topography, climate environment, sociology and economic issues as they relate to EMS were used to identify trauma system needs. Dispatch centers were also asked to participate in a survey that was used to identify their current system and future needs.

EMS response areas were identified by obtaining maps of established fire district boundaries. As several consolidations of districts have occurred within Kitsap County, those affected boundaries will require the appropriate revision.

Hospitals were also surveyed as to future trauma service designation changes. At this time there are no plans for any changes of designation levels. The Northwest Region currently has:

- 2 Level III Trauma Services
- 3 Level IV Trauma Services

### **Implementation of the Approved Regional Plan**

The implementation of the Regional Plan is an ongoing process. The Northwest Region EMS Council and local councils use the plan as a growth and planning tool, as do local agencies. Committees in their planning for future growth or activities also use the plan as a planning tool. Throughout the year it is the responsibility of staff members to work directly with their committee(s) or council members to oversee and assist in the ongoing implementation of the plan.

## **Systematic Review and Evaluation of the Plan**

Evaluation of the plan is an ongoing process conducted by staff, appropriate committee members and the Executive Committee. Possible revisions to the plan are conducted on an as needed basis.

The Regional Council is responsible for dissemination of trauma system information to local EMS & Trauma Care Councils, MPD's, trauma services and EMS agencies. Information is constantly shared through reports from Regional Council members to their local councils and minutes of council meetings and committee meetings are shared with Regional Council members and chairs of local councils.

The Regional Council reviews, revises and incorporates appropriate information and suggestions into the trauma plan and then utilizes that information in developing future goals and plans.

## ***Local Ordinances and Legislation***

Only Kitsap County in the Northwest Region has a county ordinance directly affecting EMS services. In 1977 Kitsap County adopted an ordinance to place the responsibility of emergency medical services into the control of a Kitsap County EMS Council. The council acts as the lead agency for emergency medical services and regulations. The council employs an Administrator/QA Coordinator, a Training Coordinator, Secretary, and Medical Program Director.

Otherwise, city or municipal codes govern agencies and those refer to the appropriate Washington State RCW controlling personnel levels, staffing of ambulances, equipment, and response time. Local ordinances also refer to the role of private ambulances in the EMS system and pertain to vehicle inspections, ambulance color schemes and dispatching of the private ambulance. In most instances, emergency medical calls are the domain of fire service and the dispatch of a private ambulance is made by the appropriate communications center.

Throughout the Northwest Region, most emergency medical services are supported by EMS levies. Private citizens realize the impact of a well functioning and operational emergency medical service system and are extremely supportive.

Funding from the Makah Indian Nation supports Neah Bay Ambulance, located in Neah Bay on the Makah Indian Reservation. Neah Bay Ambulance providers, by a Makah Indian Nation Council resolution, abide by Washington State WAC's, WISHA and OSHA standards.

The Northwest Region EMS Council is recognized as an integral part the of the emergency medical services system. Staff assists with initial, reciprocity and recertification testing, training equipment supplier and continuing education (OTEP) developer. The office also acts as an information resource for providers and agencies.

Together we are effectively establishing and designing a trauma care system that will enhance and become a part of the current EMS system of emergency medical and trauma care services. Such a system provides timely and appropriate delivery of emergency medical treatment for people with acute illness and traumatic injury, and recognizes the changing methods and environment for providing optimal emergency care throughout the State of Washington.

With the continuing downward spiral of budgets at the state, regional and local levels and the continuing growth of population and stress put on the EMS system, it is quickly becoming apparent that the needs of the EMS system and the invaluable efforts of the volunteer provider must be made public. A survey of agencies located within the Northwest Region and manned by mostly volunteer providers had one common thread. Volunteer manpower is on the decline and to continue providing necessary and high-level care more agencies are going to have to be supported by their local tax base that will allow for more career providers and fewer volunteers. If that support is not available, many areas will be without sufficient EMS coverage.

## ***Local System Development Costs***

The Northwest Region EMS Council has limited ability to raise funds for operation and system development. The Northwest Region EMS Council sponsors an annual EMS Conference that is self-supported and enhances training needs within the region.

A 60% volunteer force staffs agencies within the Northwest Region. Many agencies are all volunteer and do not have readily available funding resources; therefore, they must operate within their limited budgets to the best of their ability. Small agencies hold community events to help raise money for equipment. The Northwest Region will also assist in identifying and contacting volunteer agencies that may qualify for Needs Grants funds for the purchase of equipment that is lacking or outdated.

The Northwest Region coordinate and complete day to day activities on behalf of the Northwest Region EMS Council, as well as, specific deliverables as they relate to contractual obligations.

Request for Proposals (RFP's) are sent to all agencies within the Northwest Region during the month of December. Agencies are directed to complete the application identifying training needs, project objective including what training is required, an assessment of why the training is necessary (including personnel numbers), describe how training will be completed and how success of the project will be measured or evaluated.

Completed applications are then sent to their local council for review and prioritization and then forwarded to the regional office. A review by the Executive and Funding Committees to determine actual need, contractual compliance and budgetary boundaries are completed and a recommendation taken to the full council for approval.

Additional or equipment needs are addressed on an as needed basis requiring a written request from the appropriate local council, a review by the Executive and Funding Committees for compliance and approval by the full council or by the Executive Committee if so directed by the council.

The Northwest Region EMS Council, in an effort to reduce operations costs, schedule committee meetings in conjunction with Regional Council meetings whenever possible. Also, a job-sharing contract for a part-time Training Coordinator and Administrative Assistant has been developed with Kitsap County EMS. The two offices also share the expense of photocopier, fax and other operations related matters when possible.

Local trauma system development and implementation costs are difficult to project and predict. Within the Northwest Region, pre-hospital care is provided in a variety of ways and with many entities involved in the trauma system. They range from a federally funded military EMS system to a large metropolitan career agency to a small rural all volunteer agency to somewhere in between and then to a private ambulance service.

Local EMS agencies receive their funds from a variety of sources including county and local taxes, third payer reimbursement, fee for service, state and federal grants and EMS levies. 2001 EMS levy amounts, as reported by local county auditor's office, for counties located within the Northwest Region are as follows:

- Clallam County
  - Hospital District (Forks) \$ 63,823
  - Clallam FD #3 (Sequim) \$ 841,176
  - City of Port Angeles \$ 420,000
- Jefferson County \$ 916,381
- Kitsap County
  - City of Bremerton \$ 931,088
  - Kitsap County (Excluding Bremerton) \$4,792,002
- Mason County
  - City of Shelton \$ 191,871
  - Mason County (Excluding Shelton) \$ 932,733

The Region also has one private ambulance service with locations in Clallam County, Kitsap County and Mason County that operates on a fee for service bases. This service also contracts with local agencies for BLS Service and ALS Service where applicable.

# ***SYSTEM OPERATION COMPONENTS***

## **INJURY PREVENTION AND PUBLIC INFORMATION/EDUCATION**

**IPPE Plans and Strategies:** Utilizing both an EMS and a trauma focus, describe Region or Regional Council plans and strategies to:

1. The goal in the Northwest Region is to heighten public awareness about injury prevention and control in the EMS and trauma system. The Northwest Region EMS & Trauma Care Council has many strategies for increasing public awareness about injury prevention and control in the EMS and trauma systems of our counties.

### **MEDIA**

Continue to educate the public about the important role EMS plays in their communities through public service announcements on radio, television, newspapers, and use of the Public Access Cable Channels in our communities.

### **LEGISLATURE**

We will continue to maintain and cultivate working relationships with our elected officials and supply them, on a regular basis, with injury prevention concerns as they relate to current or upcoming legislation. Legislation that deals with injury prevention issues will be closely followed and supported. Through the use of our legislative network we will keep EMS providers and community leaders advised as to the status of legislation as it passes through the legislative process in Olympia.

### **DISPLAY BOARD**

With the use of our Regional Display Board we will continue to keep the public informed about prevention issues whenever we attend community events such as health fairs, county fairs, schools, fire departments and Hospital safety days, and at Legislative Day in Olympia.

### **BROCHURES – POSTERS**

Maintain and update Northwest Region produced brochures and posters for injury prevention programs that we are currently promoting and producing new brochures and posters as the need arises. We will continue to partner with injury prevention groups throughout the region who have prevention priorities to develop billboards for public awareness campaigns.

We will continue to make available to our communities' handouts such as sheets, key chains, magnets, pens, pencils, and litterbags, which carry an injury prevention message.

The Prevention Committee produced two new brochures this year; one for Sober Roadways and one for the DUI Youth Panel. We ordered enough of these brochures to send to all four of our counties for distribution.



## **PUBLIC SPEAKING**

Through men's and women's clubs, senior citizen centers, fraternal organizations, school general assemblies, classroom visits, Driver Education classes, and PTSA's we have diverse audiences to speak to about prevention and safety. We will maintain and continue to expand our participation in these educational talks and work to expand our speaking schedule.

## **HEALTH FAIRS & COMMUNITY EVENTS**

During the course of a year there are many opportunities to interact with the residents of our counties through participation in local community events. Health Fairs, County Fairs, Fire Department and Hospital Kid's Days and Safety Fairs are excellent opportunities to speak the community about prevention and safety concerns. Handouts carrying a prevention message are excellent ways to expose families to prevention information on a daily basis. This is accomplished with litterbags that are carried in cars, key chains that are in use daily, magnets that are displayed on refrigerators, etc.

## **INJURY PREVENTION EDUCATION FOR EMS PROVIDERS**

Organize, present, and evaluate a pre-conference injury prevention workshop for EMS providers. Each year the Northwest Region Annual Conference provides a full day of training for EMS providers in injury prevention. Efforts are made to select speakers and topics that are of top priority in our region. Speakers and topics for this year's Prevention Tract are:

### FRIDAY - JULY 27TH

Robert Law, Paramedic  
Central Kitsap Fire & Rescue --- Bicycle Safety & Bicycle Helmets

Aaron Davis  
Deputy Kitsap County Coroner - Fatal Crashes in KITSAP COUNTY

Lynn Drake, Manager  
Washington Traffic Safety Commission --- Youth DUI Victim's Panel

Sgt. Earl Smith  
Kitsap County Sheriff's Office--- Teen Drinking & Driving

Shirley Wise - Washington State Trooper --- Crash Dynamics  
Coordinator, Traffic Safety Task Force - Kitsap County

### SATURDAY - JULY 28<sup>TH</sup>

Tim McKern, Chair  
Northwest Region EMS Council --- Moulage

2. Develop and/or maintain a regional prevention/public education committee or network: We will continue to maintain and expand our Regional Prevention Committee. We have one committee divided into two regional components that performs prevention activities in the Northwest Region. Clallam and Jefferson committee members represent the northern part of the Northwest Region and Kitsap and Mason committee members serve the southern portion of the region. The Prevention Committees have a combined membership of 32 people who represent our local fire departments, police departments, DUI Task Forces, and business leaders and volunteers.
3. Identify and prioritize significant regional injury problems and high-risk groups, based on data (specify data resources utilized.)

Fatal Injuries 1995-1999	Clallam	Jefferson	Kitsap	Mason	<b>FOUR COUNTY TOTAL</b>	<b>WA STATE TOTAL</b>
Bicycle	1	1	4	1	7	79
Drowning	13	1	16	6	36	560
Falls	28	5	68	27	128	1633
Motor Vehicle	46	22	85	49	202	2847
<b>TOTAL</b>	88	29	173	83	373	5119

Non-Fatal Injury Hospitalizations 1995-1999	Clallam	Jefferson	Kitsap	Mason	<b>FOUR COUNTY TOTAL</b>	<b>WA STATE TOTAL</b>
Bicycle	39	13	90	19	161	2408
Drowning	6	0	16	5	27	292
Falls	1311	547	2481	952	5291	77298
Motor Vehicle	222	122	505	223	1072	14944
<b>TOTAL</b>	1578	682	3092	1199	6551	94942

The Prevention Committee found that the leading causes of death and injury were very much the same in all four of our counties. The sources that we used were statistics compiled by the Washington Traffic Safety Commission, State of Washington, Department of Health, Washington State Patrol, National Highway Traffic Safety Administration, and the Injury Prevention Network (The Trauma Foundation) and the Washington Safety Restrain Coalition, Mary Bridge Hospital in Tacoma, Harborview Hospital in Seattle. The data we used to assess problem areas and high-risk groups as broken down by age group, gender, cause of death or injury, by county and statewide statistics.

### **SOBER ROADWAYS FOR WASHINGTON**

**MOTOR VEHICLE CRASHES:** The leading cause of death and injury for all age groups (except birth to one year) in all four of our counties is motor vehicle crashes. Nearly 38% of these crashes are alcohol related -- making motor vehicle crashes and drunk driving our number one priority. State of Washington, Department of Health

Office of EMS & Trauma & National Highway Traffic Safety Administration) It is also true that significant numbers of passengers in motor vehicles, motorcyclists, pedal cyclists, and pedestrians are killed and injured in these crashes. (Washington Traffic Safety Commission, State of Washington Department of Health, Office of EMS & Trauma).

While it is true that nation-wide statistics are coming down in regard to alcohol involvement in motor vehicle crashes, the exception is sixteen-year-olds. Death and injuries for sixteen-year-old teens have been on the upswing for the past two years. (Washington Traffic Safety Commission, National Highway Traffic Safety Administration).

The Northwest Region's Prevention Committee's statistical data on drunk driving and motor vehicle crashes comes from agencies such as the Washington Traffic Safety Commission, County DUI Task Forces, County DUI Victim's Panels, Liquor Control Board, the U.S. Navy, National Highway Traffic Safety Administration, Department of Health, Office of EMS & Trauma. Because motor vehicle crashes, particularly those involving intoxicated drivers, are the leading cause of death to all people under the age of 44 Sober Roadways was developed by the Department of Health Office of Emergency Medical & Trauma Prevention in 1992 to educate the public about the tragedies involved in drinking and driving. A teen version of Sober Roadways was developed the following year to impact teens about the dangers of drinking and driving. In a two-year period in our four counties 121 people were killed in motor vehicle crashes and 1,303 were seriously injured. The Regional Prevention Teams updated the slide presentation twice in four years and included many slides of local crashes to make the program more personal. Sober Roadways is a comprehensive audio/visual presentation and personal testimony at the end of the slide presentation relating to personal experiences of the presenter, or in the case of EMS providers stories about their experience answering calls that involved drinking drivers.

### **FATAL CRASHES PER COUNTY - 1995-1999**

#### **Clallam County:**

There were 11 fatal crashes in Clallam County in 1998 with 13 deaths. 50,346 licensed drivers, 50,141 registered vehicles with 449,798 travel miles.

#### **Jefferson County:**

Jefferson County had 20 fatal crashes with 22 deaths. 21,245 licensed drivers, 23,626 registered vehicles with 303,816 travel miles.

#### **Kitsap County:**

Kitsap County had 83 fatal crashes with 85 deaths. 167,565 licensed drivers, 180,733 registered vehicles with 1,516,583 travel miles.

## **Mason County:**

Mason County had 46 fatal crashes with 49 deaths. 36,273 licensed drivers, 44,067 registered vehicles and 414,144 travel miles.

We believe that educational and informative programs such as Sober Roadways is the key to changing behaviors and attitudes for people who drink and drive. Hearing real life stories from victims who have survived An impaired driving crash or who is the surviving family member of a victim killed or injured by a drunk driver has a powerful message. We know that telling these personal and tragic stories have an impact. It is our theory that punishment alone is not always an effective answer, but punishment along with learning how one's actions have negatively impacted others is more effective.

Our Prevention Committee has partnered with the DUI Task Forces in our four counties and the DUI Victim's Panels throughout the region to make joint presentations. Also involved in this program are EMS personnel and law enforcement officers who are often used as presenters.

## **RESULTS AND ACCOMPLISHMENTS:**

### **SOBER ROADWAYS FOR WASHINGTON**

Sober Roadways for Washington has been, and remains, an important part of the Northwest Region EMS & Trauma Care Council's prevention programs. During the past year SRFW was presented 160 times to approximately 8,000 people. SRFW was also presented twenty times to Navy personnel at Sub-Base Bangor and Puget Sound Naval Shipyard. Estimated number of Navy personnel reached approximately 730. Total number of people reach with SRFW 8730.

The Prevention Committee also reprinted our Sober Roadways for Washington brochure with enough copies for distribution throughout the region.

### ***SOBER ROADWAYS -PROJECTED PLANS FOR 2002-2003***

During 2002-2003 we intend to intensify our public education about impaired driving and the tragedies it causes. The Northwest Region will continue to partner with the U.S. military bases in our region to bring the impaired driving message to military personnel. We project that during the coming two years we will do between 160 and 200 Sober Roadways presentations in our four counties and speak to approximately 9,000 people.

### **FALLS IN THE ELDERLY**

Falls, particularly falls in the elderly is the second largest injury problem in our four counties making it our number two priority. During the time period of 1995 through 1999, 128 people were killed in fall related injuries. An amazing 5,291 were injured (Fatal and Nonfatal Injuries, Washington State Department of Health, Office of Hospital and Patient Data). Falls are particularly devastating to the elderly because they are often seen as the beginning of the end for senior citizens. The fact is that falls are the leading cause of

injury and death for seniors over the age of 65. (State of Washington, Department of Health, Spokane, WA)

Fatal and non-fatal falls in region 1995-1999:

Clallam County	Non-fatal falls 1,311 Fatal falls 28
Mason County	Non-Fatal falls 952 Fatal falls 27
Kitsap County	Non-Fatal falls 2,481 Fatal falls 68
Jefferson County	Non-Fatal falls 547 Fatal falls 5

Falls are the number two cause of death and injury in Washington State and in our four counties, therefore this has become a high priority within our region. The program we are currently using (Tread to Safety) was developed by the East Region a couple of years ago. It is a comprehensive, up-to-date audio/video presentation that outlines the dangers of falls in the elderly and what can be done to eliminate dangers. In giving these presentations it has become clear that senior citizens do not recognize the danger that “lurks” within their homes. It is clear that educating seniors about the dangers to falls and the devastation they cause is essential to solving this problem.

Our presentation alerting seniors to the dangers in their homes and a checklist that we provide gives them the information they need to correct problems they find in their homes.

During the past year we have formed partnerships with several groups dedicated to teaching safety to seniors such as, senior citizen centers, Meals on Wheels, assisted living and group homes, EMS providers, volunteers and hospitals and clinics.

### **ACCOMPLISHMENTS - FALL PROGRAM**

24 PRESENTATIONS - APPROXIMATELY 1,000 SERVED.

In addition to the 1000 seniors served we distributed approximately 1500 pieces of literature to senior homes, doctor’s offices, senior centers and other places where seniors congregate.

### ***FALL PROGRAM -PROJECTED PLANS FOR 2002-2003***

The Northwest Region recognizes that falls in the elderly is a serious and pressing problem. We intend to expand Tread to Safety by training more presenters and scheduling more presentations. We would also like to reprint our Tread to Safety brochure and distribute it throughout our communities to bring awareness of the problem to the general public. The Northwest Region will do 50 presentations of Tread to Safety in our communities during the next two years and reach approximately 2500 people.

## **BICYCLE SAFETY/HELMETS**

Protecting children from serious injury and even death and teaching them about bicycle safety and bicycle helmets has always been a high priority of the Northwest Region. The most vulnerable age group is nine to thirteen year old and the highest percentage of deaths and injuries occur in boys. (Washington State Department of Health, Office of EMS & Trauma, and National Highway Traffic Safety Administration).

We have relied heavily on statistical data from the State of Washington, Department of Health, Office of EMS & Trauma, Harborview Hospital, Mary Bridge Hospital, Washington State Patrol, and State of Washington, Department of Health Office of Emergency Medical & Trauma Prevention.

### **Non-Fatal and Fatal Bicycle Injuries and Deaths 1995-1999:**

Mason County	Non-Fatal 19 Fatal 1
Kitsap County	Non-Fatal 90 Fatal 4
Jefferson County	Non-Fatal 13 Fatal 1
Clallam County	Non-Fatal 39 Fatal 1

During the past seven years we have developed several programs designed to educate parents and children about the need for bicycle helmets and bicycle safety. The one program we have is a cooperative effort with local schools to place bicycle helmets on low-income youngsters. The participating schools supply the prevention committee with the number of children who receive free or reduced lunches. From this figure we determine how many helmets each school will receive. Distribution of helmets is completed after the children take a test/survey home that they and their parents fill out. The test/survey serves as a source of education about bicycle helmets and bicycle safety for kids and parents alike. Also sent home with the youngsters are two brochures; one on bicycle safety and the other about the importance of wearing a bicycle helmet. When the helmets are finally distributed each one is fitted by a person who is trained to professionally fit helmets. A helmet that does not fit properly does not protect the head from injury. Since 1992 the Northwest Region has distributed over 12,000 free and/or reduced cost bicycle helmets to low-income youngsters in our four counties.

Another program we have is a committee of people from different agencies who have been trained to fit bicycle helmets. These volunteers are available whenever the need arises for a helmet fitting. Fittings may occur during our school programs, at bicycle rodeos, health fairs, county fairs, Head Start or pre-school events.

The Northwest Region also distributes free and/or low cost helmets at health fairs, safety fairs, kid's day at local fire stations, and bicycle rodeos. Our committee is made up of law enforcement officers, fire department personnel, local health departments, bicycle shop owners and employees, volunteers, PTSA members, etc.

## **ACCOMPLISHMENTS**

Distributed 1500 free bicycle helmets  
Provided training for bicycle helmet fittings for 32 volunteers  
1500 fittings for youngsters receiving free bicycle helmets

### **BICYCLE SAFETY/HELMETS - *PROJECTED PROGRAMS FOR 2002-2003***

The Northwest Region plans to continue our bicycle helmet/bicycle safety programs in the coming two years. We hope to expand the distribution of free and reduced cost helmets to low-income youngsters to approximately 2000 helmets. Part of these helmets will come from the Helmets For Youth Foundation in Bainbridge Island who will be contributing approximately 900 helmets for distribution to local police and fire stations. We also intend to take our bicycle safety message to as many schools and preschools as possible.

## **CHILD SAFETY SEATS AND SEATBELTS**

There is no question --- child safety seats and seat belts save lives and prevent serious injury. Washington State enjoys a high usage rate --- 83%. (Safety Restraint Coalition). The problem is, and continues to be, that four out of five car seats are improperly installed, with an average error rate of two errors per seat. (Safety Restraint Coalition). Usage rate for children wearing seat belts has the same high percentage, the problem is not being properly buckled. There is a tremendous need in the community for child safety seat clinics where parents can bring their car and car seat to ensure the seat is properly installed and we will continue to offer child safety seat clinics to parents in all four counties and make available to them handouts and brochures about the need to have a properly installed child safety seat or booster seat and equally important how to buckle their older child into a seat belt properly.

For instance when the Northwest Region Injury Prevention Committees organized our Child Safety Seat Clinics in the region we inspected 500 child safety seats and almost all of the inspected seats were improperly installed. Children buckled up in seat belts were a big problem also with four out of five children incorrectly buckled up. Child Safety Seat and seat belt usage is high, but we need more education on proper installation.

## **ACCOMPLISHMENTS**

12 Child Safety Seat Clinics – approximately 300 people  
3 eight hour trainings – approximately 34 regional people trained  
1 four day training - approximately 4 regional people trained

### **CHILD SAFETY SEATS AND SEATBELTS - *PROJECTED PROJECTS FOR 2002-2003***

25 Child Safety Seat Clinics - approximately 600 people  
4 eight hour trainings - approximately 40 regional people trained  
1 four day training - approximately three people trained

## **WATER SAFETY AND PERSONAL FLOTATION DEVICES**

The four counties that make up the Northwest Region are rich in lakes, rivers, streams, and open water so it is not surprising that water safety is a priority in our injury prevention programs. During a four-year period Washington state had 536 drowning/submersion deaths and 304 nonfatal hospitalized injuries caused by near drowning (Washington Traffic Safety Commission & Department of Health, Office of EMS & Trauma). The nonfatal figure of 304 reported incidents is no doubt low because of incidents that occurred and were not reported or were treated in private doctor's offices instead of emergency rooms (an additional source of information on drowning is Children's Hospital in Seattle).

Mary Bridge Hospital in Tacoma supplied the region with excellent water safety program geared for preschool and young children. We have lent this out to many Head Start and Preschools where they have included the curriculum in their regular daily schedule. During the past year 19 presentations have been made to approximately 680 children. Children's Hospital of Seattle a Fashion Show kit of life jackets for use in schools. They also donated to the Northwest Region approximately thirty life jackets to enhance the region's loaner program.

### **Fatal and Non-Fatal drowning 1995-1999**

Clallam County	6 Non-Fatal 13 Fatal
Jefferson	0 Non-Fatal 1 Fatal
Kitsap	16 Non-Fatal 16 Fatal
Mason	5 Non-Fatal 6 Fatal

## **ACCOMPLISHMENTS**

Water Safety program - 19 presentations in region to 680 children  
28 life jackets donated to Sequim Life Jacket Loaner Program

## ***WATER SAFETY AND PERSONAL FLOTATION DEVICES -PROJECTED PROJECTS FOR 2002-2003***

We will continue to loan our Water Safety Program to preschool and Headstart classrooms to teach children about water safety and continue to support Sequim's loaner program with life jackets that are donated to us.

## **YOUTH DUI VICTIM'S PANEL**

A high priority injury prevention program for the Northwest Region is teenage drivers, particularly 16 year olds. For teens, age 16, the death rate is on the rise. The death rate



increased among 16-year-old drivers from 19 per 100,000 licensed drivers in 1999 to 35 per 100,000 the next year. (National Highway Traffic Safety Administration). It is obvious that special care needs to be paid to teen drivers. The Prevention Committee of the Northwest Region formed the Youth DUI Victim's Panel in 1997. The Youth Panel is fashioned after the adult DUI panels that operate throughout the state. The purpose of the panel is to bring teens together to talk about drug and/or alcohol use and abuse and how it has affected their lives.

15 - 19 YEAR OLDS KILLED IN TRAFFIC CRASHES - WASHINGTON STATE  
1993-2000.

Driver -	371
Occupant -	289
Total.....	660

From 1993 to 2000 371 teens were killed in traffic collisions in Washington State and 289 teens were killed during this same time because they were passengers in fatal car collisions. The death rate (persons killed per 100,000 populations) was double the rate for all ages, and the injury rate was more than double the overall rate. Upon hearing these statistics the prevention committee felt that the region would benefit from a program designed expressly for teens. The Northwest Region EMS Council's Prevention Committee formed the Youth DUI Victim's Panel in 1997. The panel is designed much like the adult panels that operate throughout the state where victims speak about how alcohol/drugs and drunk driving has affected their lives. At the Youth Panels, hard-hitting slide audio/video presentations that incorporate dramatic personal testimony are a vital part of the program. This program is geared to change attitudes and behavior in newly licensed and teen drivers. It is aimed at decreasing the incident of drunk driving and high-risk driving behavior in teens. Teens believe that "bad" things cannot and will not happen to them, this program is aimed at changing that attitude by showing them graphic slides of crashes that have occurred because of drunk driving and high-risk driving behavior and telling them about the circumstances surrounding the event. The prevention committee realized that a special effort needed to be made to educate teenage drivers after reading current statistics.

The number one killer of teens and young adults is alcohol-related highway death. (NTSA) Alcohol is the major cause of all fatal and nonfatal crashes involving teen-aged drivers (Centers for Disease Control). Nearly eight young people die each day – one every three hours – in an alcohol-related vehicular crash (Office of the Inspector General Survey 1991). Trauma Nurses Talk Tough has brought together many agencies and people in our region. The Prevention Committee networks with local hospitals, emergency room nurses, various law enforcement agencies, volunteers, and DUI Task Forces, and EMS personnel.

ACCOMPLISHMENTS

24 presentations  
Approximately 1300 teens

## **YOUTH DUI VICTIM'S PANEL -PROJECTED PROJECTS FOR 2002-2003**

The Northwest Region intends to expand our Youth DUI Victim's Panel during the next two years.

48 presentations  
Approximately 2600 teens

## **MOCK CRASHES**

A Mock Crash is a reenactment of a teenage drunk driving crash produced in conjunction with the Prevention Committee and County DUI Task Forces. These reenactments require the cooperation and participation of many different agencies in the county. Law enforcement, EMS personnel, the Coroner's office, student volunteers, junkyards (that supply the cars), ambulance agencies, Airlift Northwest and many others. During the past year the Northwest Region participated in seven Mock Crashes with an audience of approximately 3,500 students.

## **OTHER COMMUNITY TRAINING EVENTS – Accomplishments 2001**

### ***HEALTH FAIRS, SAFETY FAIRS, KID'S DAYS, COUNTY FAIRS & COMMUNITY EVENTS***

12 Events  
Approximately 10,000 people

### ***REGIONAL PREVENTION MEETINGS***

2 meetings per month  
Total 22 meetings

### ***MASON COUNTY PREVENTION CO-OP MEETINGS***

1 per month  
Total of 12 meetings

### ***INJURY PREVENTION AND PUBLIC EDUCATION TAC MEETINGS***

6 meetings per year

### ***WHEEL COALITION (Kitsap County Health Department)***

12 meetings per year

### ***SAFE KIDS OF KITSAP COUNTY***

12 meeting per year

## ***EMERGENCY MANAGEMENT MEETINGS***

12 meetings per year

### ***RUaD***

12 meetings per year

## **HEALTH FAIRS, SAFETY FAIRS, KID'S DAYS AT LOCAL FIRE STATIONS, COUNTY FAIRS, AND COMMUNITY EVENTS**

During the past year the Northwest Region, Prevention Committee has participated in a minimum of twelve community events. We take these opportunities to interact with our communities and provide them with educational material about safety and safety programs available to them. During the course of the year we have distributed literally hundreds, maybe thousands, of pieces of literature warning people about possible dangers they face in their homes and communities. We also distribute handouts that carry a safety message such as posters, key chains, litterbags, magnets, stickers, bookmarks, etc.

## **EVALUATIONS**

Evaluations vary from program to program. For instance when doing Sober Roadways, Youth DUI Victim's Panel, Mock Crashes, and Trauma Nurses Talk Tough we use a pre-test and post-test to see if attitudes and thinking have changed after seeing our presentations. Participants in all these programs are asked to fill out a pre-test to see what their attitudes are regarding the use and abuse of alcohol and drugs before the presentation. After the presentations participants are asked to fill out a post-test to determine whether what they saw and heard had changed their attitudes. We plan to continue this method of evaluation with the above programs. We are currently working on a way to make the results of these evaluations readable so we can determine how much of an affect we are having.

At this time there are no bicycle helmet surveys being done in the region because of lack of volunteers to conduct the surveys. Through our partnership with Safe Kids we plan to conduct a survey in the spring and fall of 2002. We will continue these surveys in the next two years.

## **IPPE RESOURCES**

Following is a list of resource partners in the Northwest Region:

- **Washington Traffic Safety Commission:** Mini-grants, grants, bicycle helmets, literature and handouts.
- **May Bridge Hospital:** Water Wise Babies - literature - support with bicycle helmets and bicycle helmet fittings.
- **American Trauma Society:** Provides bicycle helmets for distribution.

- **Harrison Hospital:** Emergency Room Nurses - Trauma Nurses Talk Tough
- **Children's Hospital:** Support with drowning and personal floatation device information and education.
- **Olympic Memorial Hospital:** Kid's Safety Day
- **Washington State Patrol:** Volunteer support for bicycle helmet & bicycle safety education in elementary and junior high schools, drug & alcohol education - Youth Panel and Bremerton/Kitsap County DUI Victim's Panel.
- **City and County Law Enforcement:** Volunteer support for bicycle helmet and bicycle safety education in junior high and elementary schools, drug and alcohol education - Youth Panel and Bremerton/Kitsap County DUI Victim's Panel.
- **Washington State Liquor Control Board:** Support with lobbying judges to make penalties for juvenile alcohol/drug offenses as tough as possible to act as a deterrent to teens.
- **Safe Kids:** Support group of local agencies and business partners that promote safe kids activities and promote bicycle safety and child safety seats.
- **Mason County Injury Prevention Co-op:** Coalition of people dedicated to addressing safety issues within the county.
- **Risk Watch:** Coalition of community leaders in injury prevention fields promoting a curriculum for schools to teach youngsters about a variety of safety issues.

## **PRE-HOSPITAL**

## **COMMUNICATION**

### **Demographics**

The Northwest Region consists of Clallam, Jefferson, Kitsap and Mason Counties and also includes West Olympic Peninsula EMS Council, which includes West Jefferson County and West Clallam County.

Clallam County has three incorporated cities, which are Port Angeles, Sequim and Forks. Heavy rainfall, averaging 100 inches annually in the West Olympic Peninsula area, accompanied by strong winds during the fall, winter and spring, and an influx of tourists during the summer months, produces an increase in highway related accident injuries necessitating specialized training and equipment for EMS personnel. These conditions often add an additional stress to the emergency medical services response system. Additionally, many areas are extremely rural, without population and difficult to reach. Coast Guard personnel are available to assist, when necessary, at EMS emergencies by providing personnel and air transportation.

Jefferson County's location on the Olympic Peninsula includes several unique features affecting delivery of EMS. The county is in effect cut in half by the boundaries of Olympic National Park and the surrounding National Forest. Topography is varied throughout the county. Over 530,000 acres of National Park land and 83,000 acres of Forest Service holdings include foothills, mountains, and thick forests, which make ground transportation impossible and often blocks communications.

The 1300 seat McCurdy Pavilion hosts numerous events each year, which attracts a large tourist population. Jefferson County has only one incorporated city located within the county, Port Townsend. Additionally, the many marinas and water related activities require a variety of skills and specialized training for emergency medical personnel.

Kitsap County is the home of the Pacific Northwest region's third-largest civilian employer (after Boeing and Microsoft) Puget Sound Naval Shipyard. Puget Sound Naval Shipyard is only one of several naval installations located within the county.

Kitsap County is a long peninsula with limited cross sound access. A singular highway makes inter and intra-county travel restrictive, cumbersome and time consuming. The long shoreline and water boundaries of the county lead to increased numbers of water-related incidents. Though most of Kitsap County is rural-semi-rural, it has a very high rural density. There are no large cities in the county, even though the current rapid growth and expansion is predicted to continue for many years. High volumes of tourists pass through Kitsap County to other destinations including the Olympic National Park and Canada.

Mason County is impacted by its proximity to Hood Canal as well as its many lakes, which not only create a climate in which water accidents occur, but which often prevents quick access for response of EMS providers. Logging and Christmas tree farming are major industries producing remote-area trauma or medical emergencies, which need special consideration by the EMS system. There is a state multi-use recreational area located in Mason County which attracts a large number of motorized off-road three and four-wheel vehicles. This area accounts for a large number of trauma calls in the spring and summer months.

In summary, the Northwest Region is impacted by water and mountains, particularly Olympic National Park, Hood Canal, the Strait of Juan de Fuca, Puget Sound, and the Pacific Ocean, bad weather, and a non-dependable road system when adverse weather occurs. This creates many

problems in response mechanisms and dependability of ground transport and communications systems. Distance from major trauma centers - from one to five hours ground transport time - additionally creates unique EMS system needs. Air transport is frequently unable to get into the Northwest Region due to a lack of facilities that has the necessary instruments to allow an air ambulance to fly in bad weather.

## **Current Status**

### ***Public Access***

Clallam County is divided into three EMS dispatching centers. Enhanced 9-1-1 service is dispatched by PENCOM, located in Port Angeles, and dispatches for Clallam County Fire Districts Number 2, 3, 4 and 5. Olympic Ambulance, a private ambulance, responds as an agency of the fire department. PENCOM also dispatches for Port Angeles Police Department, Clallam County Sheriff's Department, Sequim Police Department, Lower Elwha Tribal Police and after park hours for Olympic National Park Law Enforcement.

Ray Ellis Ambulance, located at Forks Community Hospital, is dispatched by Enhanced 9-1-1 calls received at the Forks Police Department, who tones out EMS personnel, or by dialing a local seven-digit hospital number.

Neah Bay Ambulance is dispatched by Enhanced 9-1-1 calls to the Makah Tribal Law & Order Dispatch Center.

All dispatch in Jefferson County is accessed by Enhanced 9-1-1 calls received at the Jefferson County Sheriff's Office.

Kitsap County has one dispatch center, CENCOM, who dispatches for county fire, EMS and law enforcement agencies by Enhanced 9-1-1. Kitsap County is currently transitioning and training personnel in Criteria Based Dispatching (CBD). Criteria Based Dispatching will go online in Kitsap County on July 1, 1999. Kitsap County agencies and their EMS Council have borne the impact of implementation and training costs. Kitsap EMS Council also has to incur the cost of providing liability coverage for the Medical Director overseeing CBD. Unlike Emergency Medical Dispatch, Criteria Based Dispatch requires comprehensive Medical Director participation.

Mason County is served by two dispatch centers. SHELCOM, located in Shelton, dispatches for the City of Shelton, Mason County Medic One and Mason County Fire Districts Number 4, 11, 12, 13 and 16.

FIRECOM located at Mason County Fire District Number 5, Mason-Benson Lake Station dispatches for Mason County Fire Districts Number 1, 2, 3, 5, 6, 8, 9, 17 and 18 and Mason County Medic One into those areas served by that organization. Mason County is currently using a Criteria Based Dispatch System.

Both dispatch centers are accessed by the public by using the E-9-1-1 system.

## **Strengths**

All areas of our region are covered for EMS dispatching; the majority of which use an enhanced 911 system. The two largest counties, Kitsap and Mason, have currently upgraded to a Criteria Based Dispatching system, further refining the appropriate level of care dispatched to each call.

All dispatching agencies in our area have on-going training programs, pre-arrival instructions for callers, and quality assurance programs.

## **Weaknesses**

Most dispatch agencies in our counties are not consolidated meaning that dispatch agencies often overlap or cause a primary dispatch center/secondary dispatch center relationship to evolve. Some of our counties have a military presence which rely almost exclusively on its own separate dispatching system. Due to the rural nature of our region, many agencies face a lack of funding and a lack of local training resources to give all employees, especially new employees, updated training. Also, not all agencies request and/or receive MPD involvement with dispatching.

## **Goals**

We would like to see all counties using the same dispatching guidelines and have their personnel all trained to the same level. We encourage the military, Indian reservations, and other separate agencies to play an active role in the County and Regional EMS Council in order to facilitate the exchange of information and encourage more cohesiveness in our overall communication system.

## **Objectives**

Our region has also brought the need for a state-wide alternative communication system to our local councils and are working together to take part in a state-wide system that can be used in catastrophic emergencies.

## ***Dispatch***

### **1. Training for Dispatch Personnel**

The diversity of dispatch centers throughout the region provides a variety of available training aids. All agencies participate in a minimum of ongoing training from once to four times a year with various training tools including EMD Recertification, Telecommunicator I and II Certification, Access Certification, Powerphone and in-house training covering a variety of topics. Criteria Based Dispatch Centers provide their dispatchers with an additional 120 hours per year of training including recertification, in-house and projects.

### **2. Dispatch Prioritizing**

Criteria Based Dispatch and Emergency Medical Dispatch guidelines and other recognized EMD courses provide specific medical criteria so that dispatchers are able to determine the severity of an illness or injury and the appropriate level of EMS response to be dispatched. Dispatch centers within the Northwest Region do use either Criteria Based Dispatch or Emergency Medical Dispatch for prioritization of calls.

### **3. Provisions for Bystander Care with Dispatcher Assistance**

All dispatch centers, except for the Jefferson County Sheriff's Department, located within the Northwest Region do provide bystander assistance until the appropriate EMS



personnel arrive on-scene. Numerous cases have been documented that EMT dispatcher's have made a significant difference in patient outcome prior to the arrival of EMS personnel on-scene.

#### **4. PCP's or COP's**

At this time no specific PCP's or COP's apply to dispatch. Criteria Based Dispatch will be added to PCP's during their next revision.

#### ***Primary and Alternative Communications Systems***

In the major population areas of the Northwest Region primary dispatch centers are available 24/7. However, in the rural and wilderness areas of the Region secondary dispatch centers have been identified. In the West Olympic Peninsula area including Forks, Neah Bay and the Olympic National Park, PenCom located in Port Angeles acts as a secondary dispatch center when their primary centers are unavailable.

CenCom, located in Kitsap County, is the primary dispatch agency for all police, fire and medical in the county. Puget Sound Naval Shipyard, a federal installation, has a self-contained dispatch system. Bangor NSB, another federal military installation, also has their own dispatch system for their offices/industrial area and their residential 911 calls go through Cencom.

If the need arises, ShelCom and FireCom, in Mason County, act as back-up dispatch centers for each other.

#### ***System Operation During Single Patient, Multiple-Patient, Mass Casualty and Disaster Incidents***

Each county has their own operating frequencies that allow direct communication between EMS units as well as to their communication center. In the event of extreme traffic, cell phone communication may be utilized.

If multiple county jurisdictions are involved in a multi-casualty incident, there are alternate operating frequencies that may be used i.e. state chiefs and LEARN.

For EMS units contacting base hospitals, either HEAR or direct land-line recorded communications occur.

#### ***Roles of Other Public & Private Agencies***

Each county has a multi-function communications center where fire, EMS and law enforcement are located in the same communications center and in some cases a single communications officer may be performing all functions.

#### **Communication System Integration**

Single patient communications are accomplished by designated frequency from the communications center to the responding unit.

In a mass casualty situation a designated Communications Officer assumes communication responsibilities for that incident only when staffing permits in which all units are directed to a specific frequency. In which an Incident Command structure is in place.

Hospital communications – Can be accomplished through HEAR frequency, MEDNET channels, landline and cellular communications.

### **Multiple Agency Communications**

Agencies have the ability to communicate with other jurisdictions through designated frequencies or the statewide LEARN channel. Except areas of geographical isolation. All would be directed through the Incident Commander using the ICS structure.

### **Triage and Transport**

The first EMS and trauma providers' on-scene assess the patient(s) for the possibility of activation of the Trauma System by using START Triage, State of Washington Prehospital Trauma Triage (Destination) Procedures and Northwest Region Patient Care Procedure based on an ISC system. Upon evaluation of the patient(s) and determination of the need for a trauma team, the Paramedic, EMT, or appropriate medical personnel shall contact medical control at the nearest or most appropriate designated trauma center and request the activation of the Trauma System.

Once identified, trauma patients are banded, treated, transported and trauma data collected as quickly as possible. In all cases, the goal of the Northwest Region Trauma System is to have all major trauma patients delivered to the most appropriate trauma center to meet the needs of the patient within 60 minutes from the time of arrival of EMS on scene of the trauma incident.

911 Dispatch Survey Results May 2001	1-Citizen Access	2-Consolidated	3-# Employees	4-# Not trained	5-Kind of training; how often	6-On-going Training	7-Kind of Protocols	8-MPD Involvement	9-Dispatch prioritization	10-Bystander Care	11-Pre-Arrival Instructions	12-Quality Assurance
PenCom	E-911	Partially	17	0	*	Yes	EMD/	No	PP 1-2-3*	Yes	Yes	Yes
Clallam Co.	Primary agency						Powerphone					
Neah Bay	E-911	Partially	5	1	*	Yes	Local	Yes	*	Yes	Yes	Yes
Clallam Co.	Secondary/PC											
Forks Police	E-911	Partially	6	3	*	Yes	Powerphone	No	PP 1-2-3	Yes	Yes	Yes
Clallam Co.	Secondary/PC											
Olympic Natl Park	E-911	Partially	4	1	*	Yes	EMD desk ref,	EMD only	Very few calls	Yes	Yes	Yes
Clallam Co.	Secondary/PC*						SOP, LE direc.					
Sheriff's Office	E-911	Yes	7	0	*	Yes	Powerphone	Yes	PP 1-2-3	Yes	Yes	Yes
Jefferson Co.												
CenCom	E-911	Partially*	44	6	*	Yes	CBD	Sanctions	Triage	Yes	Yes	Yes
Kitsap Co.								protocols				
PSNS NesCom	911, Cell, radio,	No	13	0	*	Yes	CBD, federal	Yes/CBD	Triage	Yes	Yes	Yes
Kitsap Co.	fire alarm box											
Bangor NSB	911 or	No	8	5	*	Yes	CBD, subbase	Yes/CBD	Triage	Yes	Yes	Yes
Kitsap Co.	396-4444						approved	Yes/Nav hosp				
ShelCom	E-911	No	5	0	*	Yes	Powerphone,	Yes/	PP 1-2-3	Yes	Yes	Yes
Mason Co.	7 digit #						fire run cards	Protocols				
FireCom	E-911	No	6	3	*	Yes	Powerphone	Yes/	PP 1-2-3	Yes	Yes	Yes
Mason Co.	secondary SC							Protocols				
State Patrol	800#, 7 digit	Independent	18	18	*	Yes	n/a	n/a	State patrol	n/a	n/a	n/a
All counties	sec. To all 911's	entity							CAD			

## 911 Dispatch Survey Results—May 2001 (addendum)

PenCom	(5)	3 x year—EMD recertification; 2 x year—Telecommunicator I and II certification; 2 x year Access Certification; 1 x year—In-service training, 16 hours, various topics
	(9)	In addition, calls are not held but given to law enforcement or fire department supervisor to determine course of action
Neah Bay	(5)	Once or twice a year—Powerphone, Criminal Justice, Access, EMD, WASIC as available
	(9)	Does not have a CAD system, the community is very small and there are very few calls
Forks Police	(5)	As available—Powerphone, Access, Field Training Officer program, internal training program
Olympic Natl Park	(1)	Dispatch center is operational 7am to 5:30pm in the winter; 7am to midnight in the summer. PenCom takes calls after hours.
	(5)	2 x year—EMD recertification; 2 x year—Access recertification; Yearly—in-house training; As available—county-offered training
Sheriff/ Jefferson Co.	(5)	As needed—Telecommunicator I and II, EMD; 1 x month internal training
CenCom	(2)	CenCom is the primary dispatch agency for all police, fire and medical in the county. PSNS, a federal installation, has a self-contained dispatch system. Bangor NSB, another federal military installation, has their own dispatch system for the offices/industrial area and the residential 911 calls go through CenCom.
	(5)	Each dispatcher receives 120 hours per year of additional training (recert, in-house, projects, etc)
NesCom	(5)	4 x year—CBD; initial dispatch training; 2-x month-local in-house training
Bangor NSB	(5)	CBD training as needed; in-house training approved by SubBase/Military
ShelCom	(5)	All dispatchers are EMT and Powerphone trained; there is a weekly performance review; as available—Washington Criminal Justice Telecommunications
FireCom	(5)	Dispatchers take outside classes as available.
State Patrol	(9)	All medical calls are routed to the local 911 agencies.

## **MEDICAL DIRECTION OF PRE-HOSPITAL PROVIDERS**

### **Medical Program Directors**

Medical Program Directors (MPD's) are the integral link between prehospital care and the hospital. MPD's in the Northwest Region provide field direction, utilizing Northwest Region Patient Care Procedures and County Operating Procedures, which they are instrumental in developing. MPD's also approve continuing medical education for providers, recommend recertification for all levels and provide training and quality assurance for ALS providers.

In Kitsap and Mason counties, the MPD will also provide direction to communications delivered by dispatchers through Criteria Based Dispatching.

### **Strength**

The Northwest Region is the first Region in the State of Washington to have "Regional Protocols". MPD's from the Region discussed the idea in April 1999 and the first edition was published and distributed in January of 2001.

### **Weakness**

The first publishing of the Northwest Region EMS Protocols cost the Northwest Region EMS Council approximately \$21,000 to publish (printing, tabs, other associated costs). However, with reductions in funding the Region will be unable to bear the printing costs of the revised Protocols. Agencies will be required to pay for their providers' copies.

### **Goals**

The Northwest Region EMS Protocols are currently being reviewed and revised by the committee that originally wrote them. These revisions will be reviewed and approved by the MPD's prior to printing. Our goal is to distribute the Protocols in January 2002.

To reduce agency costs, the Northwest Region will have Protocols printed at the Monroe Prison. Since we are a non-profit agency we qualify for their printing services and the lower costs will be passed on to the agencies. Approximately, 2000 Protocols at an average cost of \$4.00 per copy will cost \$8,000.00. Exact numbers will be determined by a survey sent to all agencies.

Providers working on Bainbridge Island, located in Kitsap County, have functioned under Dr. Copass as their MPD for many years. The new MPD of Kitsap County will not be renewing this agreement with Dr. Copass and those providers will now operate under the supervision of the Kitsap County Medical Program Director and Northwest Region EMS Protocols. However, treatment and transport of patients will not be affected.

### **Delegated Supervising Physicians**

Base Station Emergency Physicians, as outlined in the State of Washington Medical Program Director Handbook; provide on-line medical control when the MPD is not available. The applicable Medical Program Director approves base Station Physicians.

## **Delegated Training Physicians**

Due to logistics, the Northwest Region has several counties currently using a Delegated Training Physician. That delegate is responsible for overseeing all levels of training, however, does not have the authority to sign recertification recommendations.

## **Regional Patient Care Protocols**

On January 1, 2000, Northwest Regional Patient Care Protocols for ALS, ILS and BLS providers were implemented in all counties except Clallam County, whose MPD chose not to participate. In March 2001, Clallam County adopted the Northwest Region EMS Protocols.

The Administrator/Quality Assurance Coordinator for Kitsap County has assumed the lead role, with the assistance of a committee, in writing and reviewing Northwest Region EMS Patient Care Protocols.

Any changes or additions to the Protocols are distributed as needed. A full review, incorporating all changes and additions, will occur annually. To reduce the cost of printing, Protocols are produced in three-ring binders. However, a full printing will be required at the end of the full review and the expense of in-house printing will be passed on to each agency.

### **Review Timeline:**

July 2001	Initial review by committee and MPD's
September 2001	MPD meeting to discuss proposed Protocol language
November 2001	Protocols approval by MPD's
December 2001	Printing of Protocols
January 2002	Distribution of revised Northwest Region EMS Protocols Current EMS Personnel Resources

The following is a profile of the workforce in the region by county, including prehospital and hospital personnel:

**CLALLAM COUNTY**

Prehospital

FR	12
EMT	217
IV	15
AIR	0
IV/AIR	4
ILS	4
PM	28

<b>TOTALS</b>	280
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**JEFFERSON COUNTY**

Prehospital

FR	12
EMT	71
IV	19
AIR	0
IV/AIR	0
ILS	16
PM	10

<b>TOTALS</b>	128
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## KITSAP COUNTY

### Prehospital

FR	14
EMT	496
IV	37
AIR	0
IV/AIR	0
PM	58

<b>TOTALS</b>	<b>605</b>
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## MASON COUNTY

### Prehospital

FR	28
EMT	134
IV	29
AIR	0
IV/AIR	1
PM	21

<b>TOTALS</b>	<b>213</b>
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## NORTHWEST REGION TOTALS

### Prehospital

FR	66
EMT	918
IV	100
AIR	0
IV/AIW	5
ILS	20
PM	117
<b>TOTALS</b>	<b>1226</b>

## **Future EMS Personnel Needs**

Recruitment and retention of EMS personnel is a process that every individual county and agency faces within the industry. Roughly 60% of the region's prehospital workforces are volunteers. The populations in each county within the Northwest Region are such that First Responder (FR) and Emergency Medical Technician (EMT) courses are traditionally full and in some cases a waiting list is established for future programs.

It is the regions mission to assist training agencies whenever possible to help meet these needs. The seemingly popular field of EMS and fire fighting has given rise to inquiries into the field. Within our region there are geographically isolated agencies with a limited resident population, therefore if staffing shortages exist or become a problem, mutual aid agreements are implemented to serve the community.

## **Prehospital Training Resources**

Prehospital Training or Community Based Training (CBT) occurs at the local agency and county levels. First Responder, Emergency Medical Technician-Basic, Intravenous Technician, Airway Technician, and Emergency Medical Technician-Intermediate are budgeted and coordinated through a hosting agency or Training Coordinator.

Clallam County does most of their training courses through Peninsula College in Port Angeles. The West Olympic Peninsula, because of their geographic isolation, is forced to conduct their training within their agencies. Jefferson County has a designated Training Coordinator who schedules and provides instruction within all the agencies in the county. Kitsap County also has a designated Training Coordinator who schedules and provides instruction through all the counties agencies. Beginning this year Olympic College will be the training platform for all initial classes. Mason County has a designated Training Coordinator as well as a Training Committee that schedules and provides training throughout the county.

At this time there are no Paramedic Training Programs in the Northwest Region. Other training that occurs within the region is conducted at the individual agency or county level, or coordinated by the regions training section. Examples of such training are; PHTLS, BTLs, ACLS, PALS, and Instructor workshops.

Expanding training at all levels of certification occur throughout a certification period in each county as directed and approved by the MPD. The BLS levels receive most of the expanded training in their OTEP program or specialized courses brought to them. The ILS responders attend the Paramedic Base Station Meetings and at the present time a program is being developed that pairs an ILS technician with a Paramedic preceptor to ensure continued clinical skills and patient contacts are being kept up to date. Paramedics at the ALS level all have mandatory monthly base station meetings where ALS level topics and training are presented. On average once every quarter a full skills lab session is done where advanced skills such as, difficult airway, IV therapy, needle thoracostomy, etc are practiced.

The Northwest Region has developed an Ongoing Training and Evaluation Program or (OTEP) that is used by all agencies within the region for their continuing education requirements for recertification. This program takes the place of the traditional Continuing Medical Education platform or (CME). OTEP is comprised of twenty-four (24) modules that cover the cognitive and psychomotor aspects of standard EMS education and training. Each module has a written evaluation and various psychomotor skills that pertain to the subject matter. Washington State

has adapted the National First Responder and Emergency Medical Technician Curriculums and has added the Washington State Specific Objectives, which are all a part of the OTEP. The design of the program is in an outline format that is complimentary to any individual teaching style. It has also gained recognition and use in other regions of the state. The revised OTEP will be entirely scenario based and be created in a canned presentation with audio-visual support material.

### **Prioritizing and Conducting Prehospital Training**

Local training agencies at the county level dictate budget and schedule all prehospital training. As needs arise for specific courses the region will assist when requested. CBT and OTEP classes are conducted monthly in all counties. Clallam and Kitsap Counties conduct at least two (2) EMT-B courses annually while Jefferson and Mason conduct at least one (1) annually. FR and other training are prioritized by local needs and personnel requirements.

Demographically, the northwest region has a very large volunteer personnel population, coupled with geographical barriers it can be a challenge to meet training and response needs. However, with a regional training coordinator and other key instructors at the county levels, personnel issues and training needs are well handled. The communication network and the fact that all MPD's have approved the regional protocols and OTEP in the region, a continuity of information is well established.

Request for Proposals (RFP's) are sent to all agencies within the Northwest Region during the month of December. Agencies are directed to complete the application identifying training needs, project objective including what training is required, an assessment of why the training is necessary (including personnel numbers), describe how training will be completed and how success of the project will be measured or evaluated.

Completed applications are then sent to their local council for review and prioritization and then forwarded to the regional office. A review by the Executive and Funding Committees to determine actual need, contractual compliance and budgetary boundaries is completed and a recommendation taken to the full council for approval.

Additional or equipment needs are addressed on an as needed basis requiring a written request from the appropriate local council, a review by the Executive and Funding Committees for compliance and approval by the full council or by the Executive Committee if so directed by the council.

### **Additional Public Safety Personnel Role and Responsibility**

The Northwest Region has a significantly greater need and use for additional Public Safety Personnel because of the geographically natural boundaries within the region. County and municipal law enforcement has always been and always will be a needed compliment to the EMS system. In some areas of the region patrol vehicles are carrying Automated External Defibrillators (AED's) that can potentially reduce the critical time factor for successful resuscitation.

The National Park Service encompasses a large portion of the regions boundaries. The Park Service personnel are trained and certified at the First Aid, FR and EMTB levels. They have the ability to respond, treat and extricate victims until local help arrives or an air-evacuation occurs.

The United States Coast Guard is another valuable entity within the region, as coastal waters surround the region on three sides. With their aircraft and water vessels they can quickly and efficiently locate and extract injured and ill victims for direct transport to local hospitals or rendezvous with local EMS.

The Army's 54<sup>th</sup> Air-Medical Wing or MAST can also deploy into our region for hoist ability and/or direct transport to local hospitals with a compliment of trained medical personnel on board.

Airlift Northwest, a private rotary and fixed wing service, is widely used throughout the region especially in the Kitsap peninsula area. With the geographical isolated areas, these Public Service entities are a valuable and potentially life saving service.

The region also has Search and Rescue (SAR) teams available for victim location and extraction with a volunteer compliment that are well trained in wilderness medicine as well as having personnel associated with local EMS agencies.

### **Strengths**

We have Regional Protocols that have been approved by all of our MPD's and are being used by all EMS providers in our region; this is a great move towards standardization of patient care in our region. Our OTEP program is used throughout our region and also by other regions in the state which also is a positive step towards standardized care in our region. Through our Regional Council, we have created an excellent working relationship between all of the EMS provider agencies in our region.

### **Weaknesses**

We do not have enough trained instructors to meet the demand by prehospital providers due to demographics and geography. There is also a lack of continuing education programs for both ILS and Paramedic level providers.

### **Goals and Objectives**

We continue to strive to maintain the quality and usage of our Regional Protocols. We are refining our OTEP program modules in order to standardize the content as well and the quality of instruction necessary for our EMS providers. We are continuing to improve our ability to facilitate excellent communication between the state, region, county, and local area EMS agencies in regards to training, funding and other pertinent issues.

## **Current Status**

Levels of prehospital care in the Northwest Region vary widely from county to county, but also within each county. Kitsap County is classified as suburban to rural and the other three counties located within the region are classified rural to wilderness. As would be expected, higher levels of services are concentrated in the more highly populated areas of the region. Kitsap and Mason counties are the only two counties that have countywide ALS coverage. Many agencies without ALS capabilities have signed Inter-Local Agreements with nearby ALS agencies to provide ALS service.

Clallam and Jefferson counties have services that range from career paramedics to volunteer BLS agencies with no paid providers. Less populated areas also have problems recruiting and keeping volunteers. In the rural remote areas of the region, the economy is so low that many people have left the area. This means that the pool of potential volunteers is smaller then ever before. This also means that those who remain are called out more frequently and subsequently suffer “burn out” more quickly.

Another problem facing rural remote emergency medical services and trauma agencies is that at times agencies can not provide a full crew of personnel. This requires an additional tone out and time lost while waiting for additional response. There are some areas, especially in the West Olympic Peninsula, where the nearest ambulance is forty-five minutes to one hour away. Add in discovery time, activation of the EMS system, response of the volunteer crew to the ambulance and you can easily have an hour and fifteen-minute wait for an EMS agency to arrive on scene.

The Northwest Region is a popular tourist destination area. The influx of tourist greatly stresses small rural volunteer emergency medical services. These tourists, being unfamiliar with the roads, wildlife, and other tourists and in some cases the very vehicles they are driving can create a hazard to themselves and others on the highway.

In the past, levels of service in rural remote areas were usually BLS, with possibly, a few IV Technicians or Airway technicians. With the advent of the Intermediate Life Support (ILS) certification, higher levels of trained personnel are now available in rural remote areas. Providers from West Olympic Peninsula, Neah Bay specifically, and Jefferson County have completed ILS training. This allows for a higher degree of trauma patient care until ALS or transport arrives. Jefferson County will be conducting another ILS course during the upcoming fiscal year.

Low call volume is also a problem facing many remote and rural area providers. It is difficult to maintain a high skill level if call volumes are very low. BLS providers must rely on classroom training to keep their skills sharp. This can be demoralizing to volunteers who have the skills to act in an emergency and have few opportunities to utilize them.

In an effort to relieve and reduce the stress on volunteer agencies and their providers, the Northwest Region has developed an Ongoing Training and Evaluation Program (OTEP). OTEP consists of twenty-four modules, including EMT-B transition courses and Washington State specific objectives.

OTEP allows for training to be conducted at the agency level and allows for providers to receive their continuing education without incurring additional out-of-pocket costs and out of area travel for training.

OTEP tests are currently under revision, which will automatically occur every two years, by the Northwest Region's training coordinator and Training/Education and Development Committee. Revised tests will be scenario based.

### Geography of the Area to Be Served

Due to the geography of the Northwest Region transportation can be impacted by many factors at any time. Winter storms, which not only affect power systems, also cause road slides, trees falling and blocking roads, and/or flooding. Alternate routes and destinations may be dependent upon which roads or highways are passable at that particular time.

Highway 166 between Gorst and Port Orchard was again closed for several months this past winter. This is the sixth time in the past four years that the highway has been closed due to slides. At this time, Washington State Department of Highways has scheduled another attempt to stabilize the hillside in an effort to avoid future slides.

Several Highway 101 slides effectively cut-off north Mason County from south Mason County. Highway 101 was closed for several months this past winter and still allows for only one lane of travel in one area. During the complete closure a SPRINT unit, under the auspices of Mason County Department of Emergency Management, and manned by a Mason County Medic One ALS Paramedic, was placed on the north side of the slide in Mason County at Eldon. The Paramedic provided emergency medical services until a unit from Jefferson County could arrive for transport. An Army MAST helicopter provided air transport services.

The distance between healthcare facilities in the Northwest Region is an important factor. It is not uncommon for a patient to have a one-hour ground transport time to the **nearest** healthcare facility.

### Mortality, by Place of Occurrence for Northwest Region

	Clallam County	Jefferson County	Kitsap County	Mason County
<b><i>Accidents</i></b>	15	10	65	28
<b><i>Motor Vehicle</i></b>	7	3	31	10
<b><i>Falls</i></b>	3	1	12	5
<b><i>Drowning</i></b>	1	0	3	2
<b><i>Fire</i></b>	0	1	5	5
<b><i>Suicide</i></b>	12	2	45	9
<b><i>Homicide</i></b>	0	0	5	1
<b><i>Other</i></b>	0	0	9	2
<b><i>TOTALS</i></b>	<b>38</b>	<b>17</b>	<b>175</b>	<b>62</b>

## CLALLAM COUNTY

**Clallam County** - Situated on the northern extension of the Olympic Peninsula in Western Washington, roughly half of Clallam County is surrounded by water. To its north and west lie the Strait of Juan de Fuca and Pacific Ocean, respectively. Further north across the Strait is the Canadian territory of Vancouver Island, British Columbia. The county's only land-bound border is shared with Jefferson County to the south and east. Roughly half of Clallam County, including most of its Pacific shoreline, is designated as part of the Olympic National Park or Olympic National Forest.

Covering a geographic area of 1,753 square miles, or just over 2.6 percent of the state's total land area, Clallam County ranks 20<sup>th</sup> in land mass among Washington counties.

The extremely varied terrain of Clallam County is considered some of the most scenic in the country. The county's Pacific coastline is comprised of rugged and windswept beaches, bays, terraces and deltas. The county's northern shore, though protected from extreme wind and weather by the Strait of Juan de Fuca, is topographically similar. Along the Bogachiel River in southwest Clallam County, thick jungles of evergreens and undergrowth from nontropical rain forests at the base of the Olympic Mountains.

Still in relative proximity to the coast, the terrain ascends rapidly as it reaches the Olympic Mountain range, which climbs to approximately 7,000 feet above sea level. Within this range lie Mount Carrie (6,995 feet) and Hurricane Ridge ---the highest elevations in the county.

<b>Clallam County</b>	
Land Area	1745.2 square miles
Land Area in Incorporated Area	15.51 square miles
Land Area in Unincorporated Area	1729.69 square miles
Total Population	66,900
Population Density	38.3 people per square mile
Population - Incorporated	26,855
Population - Unincorporated	40,045
Licensed Drivers	50,378

The prehospital response system in Clallam County is divided into nine areas. These areas include five fire districts, the City of Port Angeles, Olympic National Park (ONP), a hospital district and a Native American Indian Nation. The levels of care vary greatly across the county.

Clallam County Fire District #2 surrounds the City of Port Angeles on three sides and provides BLS response and contracts with a private company to provide ALS and transportation to Olympic Memorial Hospital in Port Angeles. The district has three aid vehicles housed, one in each of its stations. One of these vehicles is used as a backup for transportation if all other transport units are out of service. They also have contracted with a private ambulance company to have one ambulance as a back up in the event the first out is on another call. BLS response time is in the 7-9 minute range while ALS takes 20-25 minutes to respond to the edges of the district. This district is classified rural and wilderness. Even with the long responses to the extreme edges of the district, ALS responders do meet the rural response time requirement at least 80% of the time.

At the east end of the county, Clallam County Fire District #3 provides ALS service for the entire district by utilizing two on-duty paramedics 24 hours a day, seven days a week. These paramedics are based at the Headquarters Station located in Sequim, which is basically in the center of the district. The district provides ALS response with an EMT driver and a Paramedic in a non-transport vehicle. Transportation services are contracted to a private ambulance company. The Paramedic places the patient and necessary equipment into a private ambulance and the Paramedic and patient are transported to Olympic Memorial Hospital (OMH) in Port Angeles. The district has eight aid vehicles, which are placed throughout the district and respond when an aid call is dispatched in their response area. These vehicles can be used for transport in the event of a Mass Casualty Incident. This agency is classified rural and wilderness.

Clallam County Fire District #4 provides BLS service to the residents and visitors of its district, which covers, Highway 112 between Port Angeles and Clallam Bay. Response time to the edges of their district is based on volunteer response time to the only station in the district and availability of personnel to respond. Two ambulances, both located in the same station, provide BLS transportation. They cover from the west edge of Clallam County Fire District #2 on the east to the Clallam County Fire District #4 boundary at Schmidt Road on the west and south to almost the intersection of Highway 101. This area is classified rural to wilderness.

Clallam County Fire District #5 serves the Clallam Bay area. Response times to the edges of this district are based on volunteer response time to the only station in the district and availability of personnel to respond. They have two ambulances, both located in the same station, to provide BLS transportation. This area has been classified rural to wilderness.

Port Angeles Fire Department provides both ALS and BLS response from the same facility located in the north central portion of the city. They have three transport vehicles, which include two ambulances and one combination fire truck/ambulance. The same local private ambulance company that provides ALS response for Clallam Fire District #2 and Olympic National Park executes BLS transports.

Forks Hospital provides BLS and IV & Airway Technicians when those volunteers are available. Their area covers from the west end of Lake Crescent along Highway 101 on south into West Jefferson County to the Grays Harbor County line. This area covers over 2,000 square miles, a large response area for one agency. Based on the volunteer response to a call, the ambulance may require up to an hour to reach the extreme southern portion of their area. This is a result of the extreme distance of travel from the hospital to the south edge of the response area. They have four licensed ambulances, all based at the hospital in Forks. As a result of low resident population and subsequently low call volumes, it is not feasible at this time to station any other units further north or south of the existing units.

Neah Bay Tribal Council provides BLS ambulance service to residents and visitors of Neah Bay as well as the surrounding areas along the coast east to Clallam Bay. Using one paid director and a volunteer response crew they can be to the extreme reaches of their area in 15 to 20 minutes. The Tribal Council has two ambulances to provide BLS with some IV & Airway capable transportation.

The Olympic National Park (ONP) covers over one million acres and is located in all counties of the Northwest Region except Kitsap. ONP uses EMT's to provide BLS to park visitors. Only the outside edge of the park has roads. The other areas are accessible only on foot or by air. A response into the wilderness area can be from 30 minutes to a full day depending on weather and location of the incident.



Olympic National Park contracts with a private ambulance agency to provide transportation to the nearest healthcare facility for the injured and ill requiring transport. This area is considered extreme wilderness to remote.

<b>Population by Age and Gender – Clallam County</b>			
<i>Age</i>	<i>Total Population</i>	<i>Males</i>	<i>Females</i>
0 – 14	12,761	6,590	6,172
15 – 24	7,244	3,847	3,394
25 – 44	16,149	8,211	7,936
45 – 64	17,170	8,473	8,697
65+	13,576	6,046	7,531



***CLALLAM COUNTY EMS & TRAUMA CARE LICENSED PROVIDER AGENCIES***

<b><u>AGENCY</u></b>	<b><u>AGENCY #</u></b>	<b><u>VERIFICATION STATUS</u></b>	<b><u>AMBULANCES</u></b>	<b><u>AID UNITS</u></b>
Clallam County FD #2	05D02	BLS AID	0	3
Clallam County FD #3	05D03	ALS AID	0	7
Clallam County FD #4	05D04	BLS AMBULANCE	2	0
Clallam County FD #5	05D05	NOT VERIFIED	3	0
Port Angeles Fire Dept	05M03	ALS AMBULANCE	3	2
Ray Ellis Ambulance	05X01	BLS AMBULANCE	3	0
Olympic Ambulance	05X03	BLS AMBULANCE	5	0
Neah Bay Ambulance	05X04	BLS AMBULANCE	2	0
<b>TOTALS</b>			<b>16</b>	<b>12</b>

*Agency Codes: C = County, D = Fire District, M = Municipal Fire Department, S = State/Federal Agency, X = Private Agency*

<i><b>AGENCY</b></i>	<i><b>AGENCY #</b></i>	<i><b>ALS TRANSPORTS</b></i>	<i><b>BLS TRANSPORTS</b></i>
Clallam County FD #2	05D02	Olympic Ambulance	Olympic Ambulance
Clallam County FD #3	05D03	Olympic Ambulance	Olympic Ambulance
Clallam County FD #4	05D04	Clallam County FD4	Clallam County FD4
Clallam County FD #5	05D05	Clallam County FD5	Clallam County FD5
Port Angeles Fire Dept	05M03	Port Angeles FD	Port Angeles FD
Clallam County Hospital Dist #1	05X01	Ray Ellis Ambulance	Ray Ellis Ambulance
Neah Bay EMS	05X02	Neah Bay EMS	Neah Bay EMS

### ***Future Needs:***

Residents of a portion of Clallam County Fire District #2 have petitioned annexation into Clallam County Fire District #4. The community lies half-way between the closest agency in each district. However, Clallam County Fire District #4 does have property where a new station can be built. At this time, it has been determined that the incorrect RCW was used to request the annexation and Clallam County Commissioners will rescind the current annexation and Clallam County Fire District #4 wait for the new annexation request before proceeding further with plans for a new station.

Neah Bay EMS currently uses the Neah Bay Clinic as their ALS support when necessary. Makah Council members, Neah Bay Clinic doctors and nursing staff are working with the MPD and Neah Bay Ambulance staff in developing strategies that will minimize the twenty-four hour obligation of staff doctors and maximize patient care. One such strategy, that has been proven successful in like communities, is after-hour triage rotation by nurses. Resident education as to when to call or not to call 9-1-1 is also a high priority. As EMT's reach their first certification period, more ILS providers will be added.

A recent realignment of MPD services for Clallam County will benefit providers within the West Olympic Peninsula EMS region. Dr. Sandra Smith-Poling, MPD for Jefferson County, is now the MPD for West Olympic Peninsula EMS. Jefferson County utilizes ILS providers as does West Olympic Peninsula. This change will enhance EMS coverage in the area.

All agencies primarily using volunteers are facing the same problem. As call volume increases, volunteer burn-out will also increase, severely creating a need to employ permanent responders. This will be achieved through higher resident taxes, only if the community feels emergency medical services is a high priority for their community. Otherwise, agencies will be facing severe personnel shortages.

CLALLAM COUNTY		
AID SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	1	2
ILS	0	0
ALS	1	2
TRANSPORT SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	5	6
ILS	0	0
ALS	2	3

***Min/Max Numbers: No changes are required at this time. These numbers will be reviewed on an annual basis.***

## JEFFERSON COUNTY

**Jefferson County** – Jefferson County comprises a total landmass of 1,808.8 square miles, which makes it the 18<sup>th</sup> largest county in Washington. The county is situated in the upper half of the Olympic Peninsula in northwest Washington. It is bounded to the north by Clallam County, to the south by Grays Harbor and Mason counties, and to the west by the Pacific Ocean.<sup>3</sup>

Jefferson County's eastern boundary also faces water, though in a unique way. Had the county taken the shape of a more or less normal rectangle, its eastern shoreline would have abutted only Hood Canal. However, its jurisdiction continues up to the northeastern corner of the peninsula in the form of a panhandle that is often assumed to be part of Clallam County (and which includes Port Townsend and most of the other populated areas of the county). This unusual finger of land extends the county's water access to Admiralty Inlet and the Strait of Juan de Fuca.

Jefferson County's topography is best described in terms of highlands and lowlands. The highlands are mostly rugged, mountainous terrain covered by dense stands of Douglas fir. In fact, about three-quarters of the county's land mass falls within the Olympic National Park and Olympic National Forest systems. Inasmuch as the Olympics run through the middle of the county, elevations in this part of the county reach lofty heights. The higher peaks include Mount Olympus (7,965 feet above sea level), Mount Constance (7,743 feet above sea level), Mount Anderson (7,321 feet above sea level), and Mount Seattle (6,246 feet above sea level). Jefferson County's lowlands exist at its western and eastern reaches where land meets water. The county's western shore -- also part of the Olympic National Park system -- is among the peninsula's most scenic. The windswept coastline features rock formations set amidst the surf and pebbly beaches. Just offshore is an array of tidelands teeming with a host of shellfish and waterfowl. The western shore is also where three principal rivers -- Hoh, Queets, and Clearwater -- flow into the Pacific.

The lower half of Jefferson County's eastern shoreline is part of the Olympic National Forest. Consequently, the land is forested as it runs to the edge of Hood Canal. The upper half of the shore -- particularly where it extends into Admiralty Inlet -- is full of rich valleys leading up to steep and rocky cliffs pounded by wind and waves. Offering protection from the elements are several deep-water harbors. The main tributaries in the eastern half of the county include the Dosewallips, Duckabush, Quilcene, and Little Quilcene rivers.<sup>4</sup>

<b>Jefferson County</b>	
Land Area	1808.8 square miles
Land Area in Incorporated Area	6.1 square miles
Land Area in Unincorporated Area	1802.7 square miles
Total Population	26,600
Population Density	14.7 people per square mile
Population - Incorporated	8,400
Population - Unincorporated	18,200
Licensed Drivers	21,258

Jefferson has eight EMS response agencies, which serve the eastern portion of the county. The Olympic National Park occupies the south and most of the western portion of the county. Jefferson County Fire District #1 covers the area between Port Ludlow and Port Townsend. They operate two ambulances with a totally volunteer crew with some IV and Airway personnel. Marrowstone Volunteer Ambulance a non-profit group disbanded during 2000. The population

on Marrowstone is low except during the summer months when many people occupy summer cabins and the State Park is in full operation.

Jefferson County Fire District #2 covers the Quilcene/Coyle Peninsula area. Coyle is a sparsely populated area except in the summer months and on weekends. Quilcene, because of its location on Highway 101 sees a lot of motor vehicle collision trauma. Coyle has one ambulance to provide BLS transportation and Quilcene has two ambulances to provide IV & Airway Technician for transportation. There is also a National Forest Service Multipurpose Recreation Area in the district that has generated trauma calls related to off road motorized two and four-wheel vehicles. They operate with a totally volunteer system of BLS providers.

Jefferson County Fire District #3 covers the eastern most portion of the county including Highway 104 the main east to west route through the county that connects Kitsap County on the east to Highway 101 on the west. They have three ALS Paramedic units. The district has seen a large increase in population, particularly, retirees in the Port Ludlow area. This has resulted in an increase in the type of calls generated by an older population.

Jefferson County Fire District #4 covers the area from south of Jefferson County Fire District #2 to the Mason County line. This is a system staffed by all volunteers, which provides BLS transportation with two ambulances. Its location along Highway 101 means it also responds to a lot of motor vehicle collision trauma. They too are impacted by the tourist invasion that begins in March and continues to November in this area.

Jefferson County Fire District #5, located at the western edge of the eastern part of Jefferson County, wraps around Discovery Bay. Major industries in the district consist of one grocery store, a second hand store, a small discount outlet and two small restaurants. The district, because of its location along one of the most dangerous stretches of Highway 101, gets called out many times a year to medical emergencies and trauma calls involving people who are not residents of the district or even of the county. It is these calls to aid out of district patients that have prompted the district to begin billing for services. The district has an Inter-local Agreement with Clallam County Fire District #3 for ALS service. The district provides BLS transportation with two ambulances.

Jefferson County Fire District #6 adjoins Port Townsend and provides BLS service by using volunteers. They have no transportation capability. ALS and transportation services are contracted by Jefferson County Fire District #6 from Port Townsend Fire Department.

Port Townsend Fire Department presently has ALS on a part-time basis. They can expand their resources at times by having off duty paramedic respond to calls when available. They have two ambulances. Paramedics from Port Townsend will rendezvous with an incoming BLS unit just outside the city limits to aid with critically ill or injured patients when an additional Paramedic is not available to respond.

**Population by Age and Gender – Jefferson County**

<i>Age</i>	<i>Total Population</i>	<i>Males</i>	<i>Females</i>
0 – 14	4,937	2,506	2,431
15 – 24	2,745	1,443	1,302
25 – 44	6,752	3,437	3,314
45 – 64	6,996	3,558	3,438
65+	5,170	2,366	2,804



***JEFFERSON COUNTY EMS & TRAUMA CARE LICENSED PROVIDER AGENCIES***

<b><u>AGENCY</u></b>	<b><u>AGENCY #</u></b>	<b><u>VERIFICATION STATUS</u></b>	<b><u>AMBULANCES</u></b>	<b><u>AID UNITS</u></b>
Jefferson County FD # 1	16D01	BLS AMBULANCE	3	0
Jefferson County FD #2	16D02	BLS AMBULANCE	3	0
Jefferson County FD #3	16D03	ALS AMBULANCE	3	4
Jefferson County FD #4	16D04	BLS AMBULANCE	2	0
Jefferson County FD #5	16D05	BLS AMBULANCE	2	1
Jefferson County FD #6	16D06	BLS AID	0	1
Port Townsend Fire Dept	16M01	BLS AMBULANCE	3	1
<b>TOTALS</b>			<b>16</b>	<b>7</b>

*Agency Codes: C = County, D = Fire District, M = Municipal Fire Department, S = State/Federal Agency, X = Private Agency*

AGENCY	AGENCY #	ALS TRANSPORTS	BLS TRANSPORTS
Jefferson County FD #1	16D01	Jefferson County FD1	Jefferson County FD1
Jefferson County FD #2	16D02	Jefferson County FD2	Jefferson County FD2
Jefferson County FD #3	16D03	Jefferson County FD3	Jefferson County FD3
Jefferson County FD #4	16D04	Mason County Medic One &	Mason County Medic One &
		Jefferson County Medic 13	Jefferson County Medic 13
Jefferson County FD #5	16D05	Jefferson County Medic 13 &	Jefferson County Medic 13 &
		Clallam County FD3	Clallam County FD3
Jefferson County FD #6	15D06	Jefferson County FD6	Jefferson County FD6
Port Townsend Fire Department	16M01	Port Townsend Fire Dept	Port Townsend Fire Dept

***Future Needs:***

As in other counties, a high priority for Jefferson County is the ability to hire additional permanent staff and the retention and addition of volunteers. This is a necessity to maintain the current level of service with the expected increase of call volume.

Port Townsend Fire Department currently provides ALS services 80% of the time. The union and City of Port Townsend are currently negotiating for 100% ALS services to be provided starting sometime during 2001. They are also contemplating a merger with Jefferson County Fire District #6 sometime within the next 5+ years.

JEFFERSON COUNTY		
AID SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	1	2
ILS	0	1
ALS	0	0
TRANSPORT SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	5	5
ILS	1	2
ALS	2	2

***Min/Max Numbers: No changes are required at this time. These numbers will be reviewed on an annual basis.***

## KITSAP COUNTY

***Kitsap County*** - Kitsap County is situated along the western shore of the central Puget Sound region. It comprises a total landmass of 393 square miles (or 0.6 percent of the state's total land mass). As such, Kitsap County ranks 36th in size among Washington counties.

Because of its relatively water-bound situation, Kitsap County is physically connected only to Mason County by virtue of a land bridge at its southwest corner. To the north of Kitsap County across Admiralty Inlet (at the mouth of Puget Sound) is Island County; to its east across the main body of Puget Sound are parts of King, Pierce and Snohomish counties; and to its south across The Narrows is Pierce County.

The Kitsap County area—indeed all of Puget Sound—was formed eons ago by glacial activity. In Kitsap County, the result was a terrain comprised of low, rolling hills and flat-topped ridges and plateaus. Inlets, lakes, and valleys separate these inland areas. The county's shoreline is generally one of moderate to steep irregular cliffs.

<b><i>Kitsap County</i></b>	
Land Area	396 square miles
Land Area in Incorporated Area	52.38 square miles
Land Area in Unincorporated Area	343.62 square miles
Total Population	229,700
Population Density	580.1 people per square mile
Population - Incorporated	68,810
Population - Unincorporated	159,890
Licensed Drivers	167,673

Kitsap is one of two counties in the Northwest Region that has ALS available countywide. Kitsap County Fire District #1 and Kitsap County Fire District #15 have merged to form Central Kitsap Fire and Rescue. There are six ALS agencies in Kitsap County. Bremerton Fire provides ALS for the City of Bremerton and also provides ALS and BLS services, via contract, to the south end of Central Kitsap Fire and Rescue. Kitsap County Fire District Number 7, Bainbridge Island Fire Department/KCFD #2, Poulsbo Fire Department/KCFD #18, Central Kitsap Fire & Rescue and North Kitsap Fire & Rescue provide ALS for their districts as well as smaller districts that only provide BLS services. This is accomplished through formal Inter-Local Agreements.

Central Kitsap Fire & Rescue provides ALS for Kitsap County Fire District #12. North Kitsap Fire & Rescue provides ALS for Kitsap County Fire District #14 and Little Boston Fire Department. Poulsbo Fire Department provides ALS for Port Gamble. All ALS districts act as backup for each other when a unit is out of service.

Civil service and military EMS providers primarily provide BLS services for Naval facilities. ALS services are provided by county ALS agencies. All Naval branches actively support the Kitsap County EMS system.

Kitsap County Fire District #14 has merged with North Kitsap Fire & Rescue. Kitsap County Fire District #14 provides BLS transports and North Kitsap Fire & Rescue provides ALS transport.

Little Boston Fire Department provides services on the S'klallam Indian Nation reservation. North of the reservation Kitsap County Fire District #14 provides BLS response. On the south side of the reservation North Kitsap Fire Rescue, who provides all ALS response, provides BLS response.

North Kitsap Fire & Rescue headquarters is located in Kingston and provides ALS services with three Paramedic units.

Poulsbo Fire Department, which surrounds Poulsbo, is just south of North Kitsap Fire & Rescue and provides ALS services with three Paramedic units and two aid vehicles.

Bainbridge Island Fire Department/Kitsap County Fire District #2 provides ALS services with two Paramedic units.

Kitsap County Fire District #1, which is just south of Kitsap County Fire District #18, and Kitsap County Fire District #15, which is just east of Kitsap County Fire District #1, have merged and is now Central Kitsap Fire & Rescue and provides ALS services with three Paramedic units and multiple BLS units.

The City of Bremerton provides ALS services with three Paramedics and BLS transports are rotated through two private ambulance services located within the county.

Kitsap County Fire District #12 provides BLS response and contracts with Central Fire & Rescue for ALS transports.

<b>Population by Age and Gender – Kitsap County</b>			
<i>Age</i>	<i>Total Population</i>	<i>Males</i>	<i>Females</i>
0 – 14	55,014	28,268	26,745
15 – 24	32,266	17,676	14,589
25 – 44	70,155	36,496	33,657
45 – 64	48,889	24,706	24,183
65+	23,376	10,023	13,354

# ***KITSAP COUNTY EMS & TRAUMA CARE LICENSED PROVIDER AGENCIES***

<b><u>AGENCY</u></b>	<b><u>AGENCY #</u></b>	<b><u>VERIFICATION STATUS</u></b>	<b><u>AMBULANCES</u></b>	<b><u>AID UNITS</u></b>
Central Kitsap Fire & Rescue	18D01	ALS AMBULANCE	8	0
Bainbridge Island Fire Dept	18D02	ALS AMBULANCE	4	0
Kitsap County FD #7	18D07	ALS AMBULANCE	7	0
North Kitsap Fire & Rescue	18D10	ALS AMBULANCE	3	0
Kitsap County FD #12	18D12	BLS AMBULANCE	1	0
Bremerton Fire Dept	18M01	ALS AMBULANCE	5	0
Poulsbo Fire Dept	18M04	ALS AMBULANCE	6	0
Little Boston Fire Dept	18S03	BLS AMBULANCE	1	0
Bainbridge Island Ambulance Assoc.	18X01	BLS AMBULANCE	2	0
Olympic Ambulance	18X03	BLS AMBULANCE	4	0
Bremerton Ambulance	18X04	BLS AMBULANCE	3	0
<b>TOTALS</b>			<b>44</b>	<b>0</b>

*Agency Codes: C = County, D = Fire District, M = Municipal Fire Department, S = State/Federal Agency, X = Private Agency*



AGENCY	AGENCY #	ALS TRANSPORTS	BLS TRANSPORTS
Central Kitsap Fire & Rescue	18D01	Central Kitsap Fire & Rescue	Central Kitsap Fire & Rescue
Kitsap County FD2	18D02	Kitsap County FD2	Kitsap County FD2
Kitsap County FD7	18D07	Kitsap County FD7	Kitsap County FD7
North Kitsap Fire & Rescue	18D10	North Kitsap Fire & Rescue	North Kitsap Fire & Rescue
Kitsap County FD12	18D12	Central Kitsap Fire & Rescue	Central Kitsap Fire & Rescue
Kitsap County FD14	18D14	North Kitsap Fire & Rescue	Kitsap County FD14
Bremerton Fire Department	18M01	Bremerton Fire Department	Bremerton Ambulance
Poulsbo Fire Department	18M04	Poulsbo Fire Department	Poulsbo Fire Department

***Future Needs:***

Kitsap County Fire District #12 has petitioned to merge with Central Kitsap Fire & Rescue. The expected timeline is July 2001 and service is expected to remain the same.

Bremerton Fire Department has been investigating annexation into Central Kitsap Fire & Rescue. However, it appears that it will not occur anytime soon.

During the next five to ten years, Central Kitsap Fire & Rescue may be looking at the possible relocation of units based on population/activity increases brought about by normal population increases and the added population brought about by mergers and annexations.

Between 1990 and 1997, Kitsap County experienced a 21% growth rate versus a 15% growth rate in the state and even though they have the highest number of providers within the Northwest Region, they too are experiencing the need for both paid and volunteer personnel.

KITSAP COUNTY		
AID SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	2	4
ILS	0	1
ALS	0	0
TRANSPORT SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	5	6
ILS	0	1
ALS	5	6

***Min/Max Numbers: No changes are required at this time. These numbers will be reviewed on an annual basis.***



## MASON COUNTY

**Mason County** – Mason County, comprising a total landmass of 961 square miles, ranks 29<sup>th</sup> in size among Washington counties. The county is located in western Washington at the southwest end of Puget Sound. It is bordered to the north by Jefferson County, to the west and southwest by Grays Harbor County, and to the southeast by Thurston County. The county's eastern boundary ----shared with Kitsap, Pierce and Thurston counties----is primarily delineated by the rugged contours of Hood Canal and Case Inlet.

Like neighboring Thurston County, Mason's topography was heavily influenced by prehistoric glacial activity. After the ice retreated, the more mountainous areas in the county's interior evolved into dense forestland. This is particularly true in the north county, much of which is incorporated in the Olympic National Forest and Olympic National Park (elevations in this part of the county reach 6,000 feet above sea level). The lower elevations (where they are not forested) consist of fertile, but gravelly, loam. Past glacial activity accounts for nearly 100 lakes that dot the county. The larger of these bodies are Lake Cushman, Mason Lake, Lake Limerick, Isabella Lake, Timberlakes and Spencer Lake.

Hood Canal and Puget Sound account for most of Mason County's 90 square miles of water. Two-thirds of Hood Canal runs through Mason County. Two-to-three miles wide in certain places. Hood Canal enters the county from the north and, in the course of its 30-plus mile stretch, turns northeasterly at the Great Bend to form a lopsided "V". Case Inlet forms the lower half of Mason's eastern boundary. Lying in county waters are two big islands----Harstine and Squaxin----and three smaller ones: Hope, Reach, and Stretch. Of the innumerable inlets that break up the county's shore, two deserve mention: Hammersley Inlet (Shelton's access to Puget Sound) and Little Skookum Inlet (Kamilche's access to Puget Sound).

The longest and most powerful river in Mason County is the Skokomish. Formed high in the Olympic Mountains, the Skokomish flows southeasterly through Mason County before emptying at the Great Bend of the Hood Canal. One fork of the Skokomish feeds Lake Cushman and the hydroelectric power plant at Potlatch (built by the City of Tacoma). Other notable rivers in Mason County are the Satsop and Hamma Hamma. Originating in the south county, the Satsop flows southwesterly to Grays Harbor and the Pacific Ocean. The Hamma Hamma runs east near the county's northern border before flowing into Hood Canal.

<b><i>Mason County</i></b>	
Land Area	961.1 square miles
Land Area in Incorporated Area	6.04 square miles
Land Area in Unincorporated Area	955.06 square miles
Total Population	48,600
Population Density	50.6 people per square mile
Population - Incorporated	7,810
Population - Unincorporated	40,790
Licensed Drivers	36,296

Hood Canal naturally divides Mason County into three sections. The Puget Sound necessitates longer response and travel time to a healthcare facility. The north is actually the northeast section, which consists of Mason County Fire Districts Number 2, 3, 5, 6, and 8. The south consists of Mason County Fire Districts Number 4, 11, 12, 13, 16 and the City of Shelton. The west is actually the northwest section and consists of Mason County Fire Districts Number 1, 9, 17 & 18.

Mason County Fire District #2, Mason County Fire District #5 and Mason County Medic One, a private provider, provide all BLS agencies in Mason County ALS services.

Mason County Fire District #1 is located on the western shore of Hood Canal and follows along the shoreline. Mason County Fire District #1 provides BLS response only. Mason County Medic One provides ALS.

Mason County Fire District #2, which is located in the northeast portion of the county, also shares a boundary line with Kitsap County Fire District #7. The two districts often provide mutual aid when necessary. Mason County Fire District #2 provides ALS services with three Paramedic units.

Mason County Fire District #3 borders Mason County Fire District #5 on three sides. It provides BLS transportation with volunteers and one ambulance. Mason County Fire District #5 provides ALS services.

Mason County Fire District #4 is located south of the City of Shelton and its southern boundary is with Thurston County. This agency provides BLS response only. Mason County Medic One provides ALS.

Mason County Fire District #5 is south of Mason County Fire District #2 and has more land area than any other district in the county. Mason County Fire District #5 has been providing ALS longer than any other fire district in the county and provides ALS services with 2 Paramedic units.

Mason County Fire District #6 is located west of Mason County Fire District #5 at the south end of Hood Canal. It also shares a boundary with Mason County Fire District #9 and provides BLS services. As of January 1, 2001, ALS transport is provided by Mason County Fire District #5.

Mason County Fire District #8 provides BLS response only. ALS is provided through a contract with Mason County Fire Districts #2.

Mason County Fire District #9 is located west of Mason County Fire District #6 and south of Mason County Fire District #1. Mason County Fire District #9 provides BLS response only. Mason County Medic One provides ALS.

Mason County Fire District #11 is located northwest of the City of Shelton and shares a boundary with Shelton Fire Department. Mason County Medic One provides ALS.

Mason County Fire District #12 is located west of Mason County Fire Districts #13 and 16 and shares a western boundary with Grays Harbor County. Mason County Medic One provides ALS.

Mason County Fire District #13 is located just south of Mason County Fire District #16 and shares a boundary on the south with Thurston County. This district provides BLS response only. Mason County Medic One provides ALS.

Mason County Fire District #16 is located west of the City of Shelton. Mason County Medic One provides ALS.

Mason County Fire District #17 is located north of Mason County Fire District #1 and shares a north boundary with Jefferson County. Mason County Fire District #17 provides BLS response only. Mason County Medic One provides ALS.

Mason County Fire District #18 is located just west of Mason County Fire District # 1 and located around Lake Cushman. This agency became a BLS transport agency during 2000 and provides BLS response and transport. Mason County Medic One provides ALS.

The City of Shelton located in the southeast portion of the county provides BLS services and Mason County Medic One provides ALS services.

<b>Population by Age and Gender – Mason County</b>			
<i>Age</i>	<i>Total Population</i>	<i>Males</i>	<i>Females</i>
0 – 14	10,110	5,171	4,941
15 – 24	6,164	3,412	2,752
25 – 44	13,334	7,079	6,255
45 – 64	11,326	5,673	5,651
65+	7,667	3,487	4,180

***MASON COUNTY EMS & TRAUMA CARE LICENSED PROVIDER AGENCIES***

<b><u>AGENCY</u></b>	<b><u>AGENCY #</u></b>	<b><u>VERIFICATION STATUS</u></b>	<b><u>AMBULANCES</u></b>	<b><u>AID VEHICLES</u></b>
Mason County FPD #1	23D01	BLS AID	0	1
Mason County FPD #2	23D02	ALS AMBULANCE	4	0
Mason County FPD #3	23D03	BLS AMBULANCE	2	0
Mason County FPD #4	23D04	BLS AID	0	3
Mason County FPD #5	23D05	ALS AMBULANCE	3	3
Mason County FPD #6	23D06	BLS AMBULANCE	1	2
Mason County FPD #8	23D08	BLS AMBULANCE	3	0
Mason County FPD #9	23D09	BLS AID	0	2
Mason County FDP #12	23D12	BLS AID	0	1
Mason County FPD #13	23D13	BLS AID	0	3
Mason County FPD #17	23D17	BLS AID	0	2
Mason County FPD #18	23D18	BLS AID	1	2
Shelton Fire Department	23M02	BLS AID	0	4
Mason County Medic One	23X01	ALS AMBULANCE	4	0
<b>TOTALS</b>			<b>18</b>	<b>23</b>

*Agency Codes: C = County, D = Fire District, M = Municipal Fire Department, S = State/Federal Agency, X = Private Agency*



AGENCY	AGENCY #	ALS TRANSPORTS	BLS TRANSPORTS
Mason County FD1	23D01	Mason County Medic One	Mason County Medic One
Mason County FD2	23D02	Mason County FD2	Mason County FD2
Mason County FD3	23D03	Mason County FD5	Mason County FD5
Mason County FD4	23D04	Mason County Medic One	Mason County Medic One
Mason County FD5	23D05	Mason County FD5	Mason County FD5
Mason County FD6	23D06	Mason County FD5	Mason County FD6
Mason County FD8	23D08	Mason County FD2	Mason County FD2
Mason County FD9	23D09	Mason County Medic One	Mason County Medic One
Mason County FD11	23D11	Mason County Medic One	Mason County Medic One
Mason County FD12	23D12	Mason County Medic One	Mason County Medic One
Mason County FD13	23D13	Mason County Medic One	Mason County Medic One
Mason County FD17	23D17	Mason County Medic One	Mason County Medic One
Mason County FD18	23D18	Mason County Medic One	Mason County FD18
Shelton Fire Department	23M02	Mason County Medic One	Mason County Medic One

***Future Needs:***

Mason County Fire District #1 is currently a BLS Aid Service. During the months between spring and fall the tourist industry stretches their resources to the maximum. They currently operate with a part-time chief and 22 volunteer personnel. Within the next five to ten years they may upgrade their services to a BLS transporting agency.

Mason County Fire District #16 is currently without EMS personnel and not providing EMS services. Commissioners from neighboring districts have met with District 16 commissioners to discuss the recruitment of new providers. Recently two volunteers completed an EMT-B course, however, those scores have not been posted and two EMT's will not be sufficient. It will temporarily assist with mutual aid calls from neighboring districts.

Mason County Fire District #18 became a transport agency during 2000. Within five years they hope to have ILS available and within ten years have paid staff and possibly ALS services.

Mason County is also faced with a diminishing pool of volunteer providers. Retention and recruitment is of the highest priority.

MASON COUNTY		
AID SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	8	8
ILS	0	0
ALS	0	0
TRANSPORT SERVICES		
	Minimum Number	Maximum Number
	of Services	of Services
BLS	5	6
ILS	0	0
ALS	3	3

***Min/Max Numbers: No changes are required at this time. These numbers will be reviewed on an annual basis.***

- Appendices 1: Jefferson County Fire Boundaries Map
- Appendices 2: Kitsap County Fire Boundaries Map
- Appendices 3: Emailed Mason County DWG File of Fire Boundaries
- Appendices 4: Emailed Clallam County Shape File of Fire Boundaries

## Table B. VERIFICATION

Northwest REGION Clallam County

7/10/01 DATE

### *Min/Max Numbers for trauma-verified prehospital services*

#### Instructions.

- a. List the current DOH-approved number of prehospital verified services within the region by county.
- b. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
- c. List the current number of services verified at each level, as identified in the need and distribution section.
- d. Submit a completed Table B for each county

**Note:** Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	<i>Approved</i>	<i>Recommended</i>
Aid -BLS	X	0	1	1	2	2
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	0	1	1	2	2
Amb - BLS	X	5	5	5	6	6
Amb - ILS	X	0	0	0	0	0
Amb - ALS	x	2	2	2	3	3

**NOTE:** Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DOH-approved minimum and maximum numbers.



## Table B. VERIFICATION

Northwest REGION Jefferson County

7/10/01 DATE

### *Min/Max Numbers for trauma-verified prehospital services*

**Instructions.**

- e. List the current DOH-approved number of prehospital verified services within the region by county.
- f. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
- g. List the current number of services verified at each level, as identified in the need and distribution section.
- h. Submit a completed Table B for each county

**Note:** Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	<i>Approved</i>	<i>Recommended</i>
Aid -BLS	X	0	1	1	2	2
Aid - ILS	X	0	0	0	1	1
Aid - ALS	X	0	0	0	0	0
Amb - BLS	X	5	5	5	5	5
Amb - ILS	X	0	1	1	2	2
Amb - ALS	x	2	2	2	2	2

**NOTE:** Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DOH-approved minimum and maximum numbers.

## Table B. VERIFICATION

Northwest REGION Kitsap County

7/10/01 DATE

### *Min/Max Numbers for trauma-verified prehospital services*

**Instructions.**

- i. List the current DOH-approved number of prehospital verified services within the region by county.
- j. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
- k. List the current number of services verified at each level, as identified in the need and distribution section.
- l. Submit a completed Table B for each county

**Note:** Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	<i>Approved</i>	<i>Recommended</i>
Aid -BLS	X	1	2	2	4	4
Aid - ILS	X	0	0	0	1	1
Aid - ALS	X	0	0	0	0	0
Amb - BLS	X	4	5	5	6	6
Amb - ILS	X	0	0	0	1	1
Amb - ALS	x	6	5	5	6	6

**NOTE:** Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DOH-approved minimum and maximum numbers.

## Table B. VERIFICATION

Northwest REGION Mason County

7/10/01 DATE

### *Min/Max Numbers for trauma-verified prehospital services*

#### Instructions.

- m. List the current DOH-approved number of prehospital verified services within the region by county.
- n. Using the information identified in the narrative above regarding the need and distribution process for each county, specify the regionally- recommended minimum/maximum number of prehospital verified services within the region, by county.
- o. List the current number of services verified at each level, as identified in the need and distribution section.
- p. Submit a completed Table B for each county

**Note:** Only a number or a zero may be entered as a recommendation in each of the blanks below, and each blank must contain either a number or a zero.)

SERVICES	Check if No Change	CURRENT Number Verified	MINIMUM NUMBER		MAXIMUM NUMBER	
			Approved	Recommended	<i>Approved</i>	<i>Recommended</i>
Aid -BLS	X	8	8	8	8	
Aid - ILS	X	0	0	0	0	0
Aid - ALS	X	0	0	0	0	0
Amb - BLS	X	4	5	5	6	6
Amb - ILS	X	0	0	0	0	0
Amb - ALS	x	3	3	3	3	3

**NOTE:** Include a narrative discussion explaining the region's rationale or justification for recommended changes in the current DOH-approved minimum and maximum numbers.

## **Strengths**

The Northwest Region has much demographic and geographical diversity, which with the limited number of certified personnel have managed quite well with the number of EMS responses region wide. The ratio of ambulance to aid services is such that any given patient is not waiting long periods of time to be transported to a hospital whether via ground or air service. And time of dispatch to on scene time is not normally extended either.

## **Weaknesses**

In the urban areas aid and ambulance service responses are quite good, however in the rural to extreme rural and wilderness settings with limited resources, service at both levels can always use improvement. The high attrition rate and lack of good recruitment has taxed current personnel in many areas, this needs to be looked at and improved so future service is not jeopardized.

## **Goals**

Improve upon retention and recruitment of certified personnel to improve responding personnel region wide. Improve the assistance of the fire service where EMS service is provided by non fire service agencies, this alone would greatly improve the safety of EMS personnel on a manpower level and for better patient care. Further assist each county in recognizing population growths in relation to service provided and personnel to provide the service.

## **Patient Care Procedures and County Operating Procedures**

On March 11, 1999, the Northwest Region EMS Council adopted revisions to the Northwest Region EMS Patient Care Procedures. At that time, Jefferson County and Mason County included specific County Operating Procedures. DOH approved the Northwest Region Patient Care Procedures in May, 1999.

During FY'02 the Northwest Region EMS Training, Education and Development Committee will be reviewing and checking for compatibility and compliance between Patient Care Procedures, Northwest Region EMS Protocols and County Operating Procedures.

Costs of review, revision and distribution of PCP's will be borne by training funds at the regional level.

## **Multi County or County/Inter-Regional Pre-hospital Care**

The following procedures currently exist in the Northwest Region's PCP's and will be reviewed during FY'02 for revisions.

## **Triage and Transport**

The first EMS and trauma providers' on-scene assess the patient(s) for the possibility of activation of the Trauma System by using START Triage, State of Washington Prehospital Trauma Triage (Destination) Procedures and Northwest Region Patient Care Procedure based on an ISC system. Upon evaluation of the patient(s) and determination of the need for a trauma team, the Paramedic, EMT, or appropriate medical personnel shall contact medical control at the

nearest or most appropriate designated trauma center and request the activation of the Trauma System.

Once identified, trauma patients are banded, treated, transported and trauma data collected as quickly as possible. In all cases, the goal of the Northwest Region Trauma System is to have all major trauma patients delivered to the most appropriate trauma center to meet the needs of the patient within 60 minutes from the time of arrival of EMS on scene of the trauma incident.

### **Major Trauma Patients**

An air ambulance transport is considered for transport by agencies in the Northwest Region when transport by ground will be greater than 30 minutes, unless weather conditions do not allow for such use.

The decision to activate air ambulance service for field response to major trauma is made by the highest certified responder from the scene with on-line medical control consultation. When an Incident Command Structure system (ICS) is used, the commander shall be an integral part of the process.

Air ambulance services requested to respond into the Northwest Region will follow their policies for accepting a field mission and their Rotary Wing Primary Service Area criteria

In western portions of the region flight time for air transport can be up to one hour from the time they leave the Seattle/Tacoma area. In those cases, it is the procedure to transport to the nearest appropriate facility, after activating air transport. The patient can be stabilized and appropriate treatment can begin while awaiting the arrival of an air transport vehicle.

### **Other Injured Patients**

Patients who are not major trauma patients will be transported to the most appropriate facility within the prehospital provider's service area. If a patient wants to be taken to a facility outside of the service area of the prehospital provider, the patient will be taken to the nearest appropriate facility; initial stabilization will occur; and then a transfer to the facility of choice will occur by an verified inter-facility transfer transport unit.

### **Medical Patients**

Since great distances separate hospitals located within the Northwest Region, transports for medical patients usually occur in the traditional transport pattern with few exceptions. These exceptions are usually based on patient or family wishes for final destination.

### **Special Needs Patients**

Special needs patients are taken to the nearest facility and then transfer arrangements are made on a case-by-case basis based on individual patient needs.

## **Out of Region Pre-Hospital Care**

Patients transferred out of any local base coverage area (from either the base hospital or the field) are initially the responsibility of local on-line medical control. Prehospital personnel follow local prehospital protocols. Initial orders, which are consistent with local prehospital protocols, are obtained from base station on-line medical control.

When the transport service crosses into destination jurisdiction, the destination on-line medical control is contacted and given the following information:

1. Brief history
2. Pertinent physical findings
3. Summary of treatment (per protocols and per orders from base medical control)
4. Response to treatment
5. Current condition

The destination medical control physician may add further orders provided they are within the capabilities of the transport personnel.

The nearest trauma center base station will be contacted during the transport should the patient's condition deteriorates and/or assistance is needed. The transport unit may divert to the closest trauma center as dictated by the patient's condition.

## **Strengths**

Overall the NW Region's prehospital arena is well established and functioning well. From communications to training to patient care, the region and its components are continually striving for the best possible solutions at delivering quality care.

The Regional OTEP and Protocols utilized by the entire Northwest Region EMS services is an amazing accomplishment, creating a system of dedicated personnel with the ultimate goal of quality, efficient and professional service to the members and visitors of the NW Region.

## **Weaknesses**

The Northwest Region, like other regions has the continued problem of normal attrition as well as the loss of personnel due to increasing demands on training requirements, equipment specifications and an overall increase in the time to maintain certification. All this with an increased loss in funding makes the retention, recruitment, and glory of EMS service difficult, especially in a predominately volunteer community where time away from the family has become a way of life to protect and serve their communities.

## **Goals**

Improve to the best of our ability those identified areas in prehospital care that are continually changing. Region wide improve our communication systems so that all geographic areas can communicate with a centralized center and medical control. Improve the quality of OTEP so that the ongoing training truly reflects real life experiences and scenarios. As a resource, improve the communications to each agency so as to better serve the personnel in recertification and reduce certification loss.

## **Objectives**

Improve communication systems, revise OTEP in a realistic scenario base, as a resource, evaluate and improve the EMS personnel's ability to recertify and maintain requirements in the least amount of time with the most efficient and quality process.

## **Strategies**

With continuing communication with each agency within the Northwest Region, we will survey, evaluate, test and determine how the goals can be accomplished and what resources are needed to make them a reality. Committee involvement from local councils to DOH will help keep the lines of communication open and clear as to the most efficient ways to meet our goals.

## DESIGNATED TRAUMA CARE SERVICES

### Current Status

The Northwest Region was the first region in the state to achieve 100% designation of their hospitals. There are five hospitals in the region that the public can access for emergency healthcare. The five are evenly spaced throughout the region and each has their own catchment area. Each also serves as the base station for their own area.

***Forks Community Hospital*** - Forks, Clallam County. Forks Community Hospital is located on the western edge of Clallam County. They also serve part of West Jefferson County. Forks Community Hospital serves as the base station for the EMS System in the Forks and Clallam Bay areas as well as West Jefferson County. Forks Community Hospital is designated as a Level IV Trauma Center. Due to the distance to travel to a higher-level trauma center, most patients are brought to Forks Community Hospital for stabilization transferring out, weather permitting.

There are no surgeons in Forks. Therefore, all surgery cases must be transferred. Most of the less than major trauma cases are transferred to Olympic Memorial Hospital in Port Angeles. Major trauma cases are usually airlifted to Harborview. Flight time to Forks Airport from Seattle is forty-three minutes. Then a forty-three minute return flight back to Harborview eliminates the golden hour for patients.

Prehospital service is BLS with some IV Techs and a few Airway trained individuals. Transfers must be well planned since there are no healthcare facilities located between Forks and Port Angeles. There is no one to assist if the patient's condition deteriorates while enroute to Port Angeles.

The airfield at Forks does not have Instrument Flight Reading (IFR) capabilities; therefore, air ambulances cannot land in inclement weather. The closest airfield that is IFR is in Port Angeles, which requires an additional ninety minutes of ground transport. Ground ambulances must travel Highway 101 which can delay the transport or stop it entirely if there is a problem with the road around the Crescent Lake. These problems range from a tree across the road to a rockslide or ice and snow. Olympic National Park staff maintains the road. It takes time to gather the resources to resolve blocking problems. This can take several hours to days to complete. There are no alternate roads around Crescent Lake without backtracking thirty-five miles and accessing Highway 112, which has a tendency to wash out or also become blocked with downed trees.

***Olympic Memorial Hospital*** - Port Angeles, Clallam County, is located at the north edge of the central part of the county. Olympic Memorial Hospital, during the last designation process upgraded from a Level IV to a Level III Trauma Center. Olympic Memorial Hospital serves as the base station for the EMS System of central and eastern Clallam County. They have surgical capabilities that Forks Community Hospital does not have, so they receive many patients from Forks. Like Forks Community Hospital, the distance from Seattle means that major trauma patients are brought to Olympic Memorial Hospital for stabilization and then flown to a higher-level trauma center that meets the needs of the patient. Olympic Memorial Hospital has a helicopter-landing pad on its campus, which facilitates the transfer of patients to the helicopter directly from the Emergency Department.



If weather conditions are poor, the air ambulance can land at the airport in Port Angeles requiring an additional fifteen minutes for ground transport of the patient to the airfield. The Coast Guard Air Station in Port Angeles also has IFR and can serve as a safe landing site for the air ambulance during poor weather conditions.

***Jefferson General Hospital*** - Port Townsend, Jefferson County. Jefferson General Hospital is a Level IV designated Trauma Center. Jefferson General Hospital serves as medical control for all of East Jefferson County. Jefferson General Hospital is located at the northeast portion of the county. This means that all but the patients originating in Port Townsend must be ground transported from just a few miles to over forty miles over roads that can be closed for a variety of reasons.

Major trauma patients are transferred out to the appropriate hospital in the Seattle area. With the new construction project completed in the fall of 1995, Jefferson General Hospital will have a heliport on the roof of its new facility. This will expedite the transfer of patients from the Emergency Department to the air ambulance.

Air flight time from Seattle to Jefferson General Hospital is fifteen minutes one way under ideal conditions. If the conditions are less than ideal, the patient must be ground transported to Seattle. The airport in Port Townsend is not IFR.

***Harrison Memorial Hospital*** - Bremerton, Kitsap County. Harrison Memorial Hospital is designated as a Level III Trauma Center. Harrison Memorial Hospital is located in East Bremerton, which is located in Central Kitsap County. Harrison Memorial Hospital serves as the base station for the Kitsap County EMS System.

Harrison Memorial Hospital is the largest hospital in the Northwest Region. Very few patients are transferred to Harrison Memorial Hospital because Harborview is only eight minutes away by air ambulance. Harrison Memorial Hospital has surgical suites capable of supporting neurosurgery. However, there are no neurosurgeons in the Kitsap area.

All major head and major trauma patients are airlifted directly from the field. It is possible to have an air ambulance on the ground in most of Kitsap County within ten minutes; the exception would be the extreme western edge in the Hood Canal area. This allows for the patient to be at Harborview well within the golden hour provided there is not a prolonged extrication or rescue.

The Regional Naval Hospital in Bremerton is for active duty personnel, their dependents and retired military personnel. They have stated that in time of a regional emergency they will take patients if they have beds available.

***Mason General Hospital*** - Shelton, Mason County. Mason General Hospital is located in the southeastern portion of the county. Mason General Hospital is designated as a Level IV Trauma Center. Mason General Hospital serves as the base station hospital for all of Mason County.

Mason General Hospital has surgeons who treat all but the major trauma patients. Major trauma patients are either brought to Mason General Hospital for stabilization and then airlifted out or flown directly from the field based on the location of the patient and the availability of the air ambulance.

Mason General Hospital has a heliport just outside the Emergency Department, which means the patients are brought directly from the ED to the waiting helicopter. This is an advantage to the patient.

The Northwest Region EMS Council will continue to encourage acute care facility providers to participate in trauma education such as approved TNCC, PALS OR ENPC, ACLS and ATLS courses by providing student reimbursement for each class attended.

The Northwest Region has recently purchased a Laerdal/AHA approved Heartcode interactive computer system for ACLS training. This program allows an individual convenience and ease in recertification in ACLS onsite at their workplace. One can practice and review all aspects of ACLS objectives and skills in a live interactive program, using live models and up to date therapy. This program can significantly reduce the costs of having to send personnel out for the same training.

Though this program is not for everyone, as it does not allow live interaction with an instructor, it does however successfully evaluate individual skills as in a live course. As requested by a training site the regional training coordinator, an ACLS Instructor, can accompany the system and give instruction on its use as well as instructor interaction as in traditional courses.

During fiscal year 2002 the Northwest Region EMS Council will provide regional training for ACLS, PALS and TNCC courses. This will assist personnel in meeting their educational designation-training requirements and will alleviate some of the costs to hospitals by reducing out-of-area training expenses and coverage costs by other staff members.

An assessment will be conducted to determine the training needs of acute care facility providers and to ensure that all-acute care facility providers region-wide receive the type of trauma training necessary to meet there needs.

Hospital Education and Training is almost entirely performed at the individual hospitals in the region. The nursing staff comprises the largest group needing annual training in Continuing Medical Education. Basic Cardiac Life Support (BCLS), Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Trauma Nursing Care Course (TNCC) and others are the typical training needed every year or every other year. Physician training is accomplished within the professional medical community, although physicians often participate in ACLS and PALS courses.

The Northwest Region has recently purchased a Laerdal/AHA approved Heartcode interactive computer system for ACLS training. This program allows an individual convenience and ease in recertification in ACLS onsite at their workplace. One can practice and review all aspects of ACLS objectives and skills in a live interactive program, using live models and up to date therapy. This program can significantly reduce the costs of having to send personnel out for the same training. Though this program is not for everyone, as it does not allow live interaction with an instructor, it does however successfully evaluate individual skills as in a live course. As requested by a training site the regional training coordinator, an ACLS Instructor, can accompany the system and give instruction on its use as well as instructor interaction as in traditional courses.

**Clallam County**Hospital

LPN - 13

RN - 187

RT - 6

LAB - 46

X-RAY - 27

**TOTALS 279****Jefferson County**Hospital

LPN – 0

RN – 85

RT – 4

LAB – 10

X-RAY – 8

**TOTALS 107****Kitsap County**Hospital

LPN – 63

RN – 343

RT – 12

LAB – 0

X-RAY – 30

**TOTALS 448**

Mason County

	<u>Hospital</u>
LPN -	13
RN -	99
RT -	8
LAB -	21
X-RAY -	6
<b>TOTALS</b>	<b>147</b>

**NORTHWEST REGION TOTALS**

	<u>Hospital</u>
LPN –	97
RN –	727
RT –	22
LAB –	72
X-RAY –	70
<b>TOTALS</b>	<b>988</b>

**Demographics**

Although the Northwest Region sees a great influx in tourist travel each year, currently there are no plans to change levels of designation.

**Designated General, Pediatric and Rehabilitation Trauma Facilities**

Based on a needs assessment conducted annually and information received from designated trauma facilities, no changes in levels of designation will be required.

**TABLE C**

**DESIGNATION**

**NORTHWEST REGION**

**Date:** 7/10/01

Min/Max Numbers for **Acute** Trauma Services

LEVEL	MIN	MAX	CURRENT STATUS
II	1	1	0
III	2	2	2
IV	2	3	3
V	3	4	0
IIP	0	0	0
IIIP	1	1	0

Min/Max Numbers for **Rehabilitation** Trauma Services

LEVEL	MIN	MAX	CURRENT STATUS
II	0	0	0
III	0	0	1

Please indicate any changes to min/max numbers by including an “\*” beside the min or max number that is a change.

## ***DATA COLLECTION AND SUBMISSION***

It is the agency responsibility for collection and submission of major trauma data, however the Northwest Region will assist them on request for information on collector training and referrals to DOH staff for assistance.

It is the mission of the Northwest Region to continue promoting and assisting regional agencies in the process of data collecting and submission.

### **Weaknesses**

The data collection process is in constant flux. The change from agency reporting, which they were just buying into, to the current reporting process by agencies to the hospital, have stalled the impetus of reporting.

### **Strategy**

The Northwest Region EMS Council will continue to encourage all agencies to report their data promptly and correctly to their hospitals.

### **Goal**

The goal of the Northwest Region is to promote 100% compliance in reporting data so that data returned to the Region will be accurate and can contribute to the future direction of the Region. This data will be used by the appropriate committee members of prevention and training will be used to promote prevention activities and guide on-going training. The data will also be used in the writing and implementation of future Trauma Plans.

Data collection will also be included in the Northwest Region EMS Protocols. Currently, it is not included.

# ***EMS AND TRAUMA SYSTEM EVALUATION***



## **Effectiveness And Quality Assurance**

Each county within the region has an effective peer review and/or evaluation program that is conducted monthly. Case reviews are discussed at a committee level and then problems or accolades are referred to the MPD or county QI Coordinator, when applicable.

A Northwest Region QI Committee was developed in 1997 and a Northwest Region QI Plan was completed and submitted to DOH in June of 1997.

This committee's membership consists of representatives from each hospital located in the region, prehospital representatives from county agencies, county MPD's and lay persons involved within the EMS system. The Northwest Region QA Committee meets prior to Northwest Region EMS Council meetings to review prehospital and hospital cases. Committee members also attend an annual retreat. Case reviews and guest speakers are included on the retreat agenda.

## **Weakness**

The current weakness of the system is the unavailability of good data. Although, reportable data is improving and more usable data is available each reporting cycle.

## **Strength**

The Northwest Region EMS system is a very strong and good system. We have led the state in OTEP training and the approval of Regional Protocols. With the input of strong supportable data we will be able to continue to focus on providing the best care available.

## **Goal**

Our goal is to continue to lead the state in EMS services by thinking "outside" the box and by using available information and data to not only improve our EMS system but to always move forward and not laterally with services provided.<sup>2</sup>

***Submitted by:***

***Date:***